The Lumleian Lectures
ON
SOME CIRRHOSES OF THE LIVER.

Delivered before the Royal College of Physicians of London on March 29th and April 3rd and 5th, 1900,

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LECTURE II.[1]

Delivered on April 3rd.

GENERAL CONSIDERATIONS WITH REGARD TO THE FORMS OF CIRRHOSIS.

MR. PRESIDENT AND GENTLEMEN,—There are certain points connected with the pathology of the different forms of cirrhosis discussed in the first lecture which deserve a passing consideration.

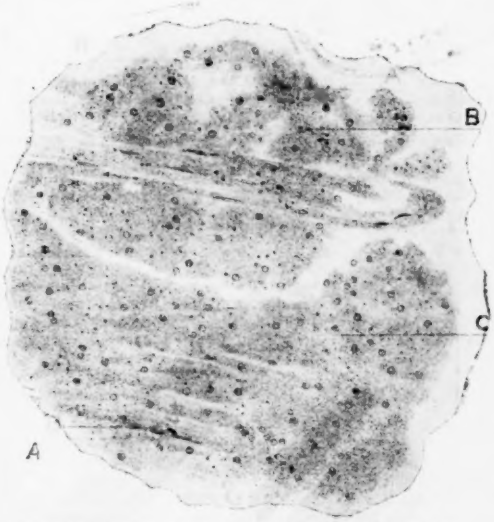
DEGENERATION OF HEART MUSCLE.

The first of these, and perhaps the most important, is the association of marked degeneration of heart tissue with cirrhosis. Degeneration of cardiac muscle and cardiac failure are, of course, acknowledged results of chronic alcoholism, and their importance in that relation has been emphasised by Dr. Graham Steell,[2] but the frequency of such degeneration and failure in connexion with cirrhosis, its pathological significance, and its bearing upon prognosis, have, I think, been insufficiently appreciated. Of the 53 fatal cases mentioned the condition of the heart was especially noted in 36. In six of these fatty degeneration, in some instances extreme, was verified by microscopic examination, active myocarditis was observed in one, and in eight others the muscle was found to be pale, soft, and presumably fatty; in nine more there was atheroma of one or other of the cardiac valves. There was, therefore, marked degeneration of heart muscle in eight and in less degree in nine more—or 17 in all—out of 36, without counting the cases (nine more) in which atheroma of the valves only was recorded. Of the 17 cases of fatty degeneration the liver was enlarged in 11 instances; in six it was small and contracted. So that the tendency to degeneration is not limited either to the large or the small liver. In 13 the cirrhosis was distinctly traced to alcohol.

My attention was first drawn to the frequency of these changes by my friend Dr. Poynton and I am indebted to him for the following account of the condition of the heart muscle and for the microscopic preparations from which the sketches before you have been taken. "The descriptions and figures are based upon an examination of six fatal cases of cirrhosis—all traced to alcoholism. In three the liver was enlarged and in three it was contracted. The naked-eye appearance was one of undue softness and pallor and the texture was abnormally friable. The changes were similar in all, but most extreme in one in which there was also peripheral neuritis. Microscopically these were seen to affect the muscular fibres rather than the interstitial tissues. Numerous dark granules ('brown atrophy') were always found in the muscle fibres, especially spreading from the poles of the nuclei. In addition to this, in several cases the nuclei had undergone this dark granular change wholly or in part. Striation was often lost and the fibres had a 'ground-glass' appearance. In other cases the striation was more evident than natural, giving a wirework appearance to the fibres. There was fragmentation of many fibres; fatty change was present in many cases, the fat globules being as a rule minute and finely scattered. The fibres were irregular in shape and size and in the worst cases had lost all contour. The chief interstitial change was a fatty infiltration separating the fibres, and in some instances this condition was well marked. That these morbid changes were not dependent upon failure of general health as a result of the cirrhosis seems clear from the fact that a similar appearance was found in the cardiac muscle of a drunkard who died from pneumonia and delirium tremens, in whom the liver was not cirrhotic." (See Figs. 5 and 6.)

The frequent occurrence of serious degeneration of the cardiac muscle accounts for the fact that a certain proportion of these cases end suddenly in death by syncope—many more by rapid, if not sudden, heart failure. In the 53 fatal cases mentioned the patient died suddenly from syncope (not the result of hæmorrhage) in six instances. As I shall endeavour to show later, it is probable that the enfeebled cardiac condition may sometimes be the factor which

FIG. 5.



Extreme degeneration of the heart wall in a case of alcoholic cirrhosis of the liver. Many of the muscle fibres are unrecognisable. The protoplasm of the muscle has lost striation. There is scattered fatty change. Many of the muscle nuclei are circular in outline. A, Muscle fibres. B, Muscle nucleus circular in outline. C, Degenerated muscle protoplasm. Osmic preparation.

determines the advent of ascites in alcoholic cirrhosis, and also be concerned in the development of the fibrotic change and influence its character.

CONCURRENT INTERSTITIAL FIBROSIS OF OTHER ORGANS.

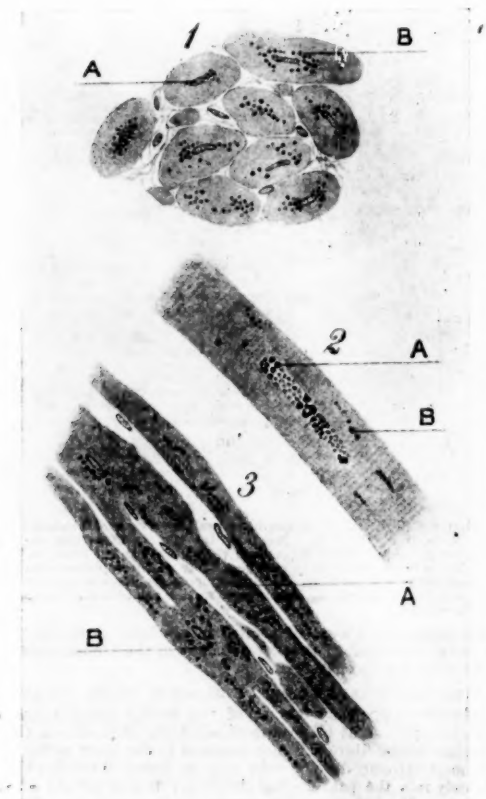
Another important feature of the morbid state in cases of cirrhosis—or at all events of alcoholic cirrhosis—is that the interstitial fibrosis is not confined to the liver, although its most extreme development may be found there and very largely rule the pathological situation; it also affects other organs. The kidneys suffer next to the liver in order. They were found to be distinctly affected in 26 of the 53 cases. In five instances the kidneys were granular; "moderately cirrhosed" or "fibrosed" in 13; in five they are described as "fibrosed" simply; and in three there was parenchymatous nephritis. Again, in 12 of these cases, in which the liver was markedly atrophic and small, there was fibrotic change in the kidney in every instance, but in five only was the interstitial change advanced. In the remaining seven it was extremely slight. The spleen was enlarged in 23 instances, 11 of these being in atrophic and 12 in hypertrophic cases, and its condition was noted as fibrosed in six. The pancreas has only been systematically examined in a few of the recent cases—viz., in 14. It is described as cirrhosed in three instances and extremely hard or firmer than natural in 10; in the remaining case, which was one in which neither alcohol nor syphilis could be traced, the organ was large and soft. In seven of the 14 cases alcoholism was established, in two syphilis, and in the remaining five the cause was not stated.

This association of cirrhosis of the pancreas with cirrhosis of the liver is of interest in connexion with Hanot's[3] observation that hypertrophic cirrhosis was an occasional complication of diabetes, and also on account of the association of

[1] Lecture I. was published in THE LANCET of March 31st, 1900.
[2] Medical Chronicle, vol. xvi., 1892.
[3] Hanot and Chaufford: Revue de Médecine, 1882.

fibrosis and atrophy of the pancreas with diabetes independently. In the St. Mary's cases the fibrosis of the pancreas was not limited to those cirrhoses of the liver in which that organ was enlarged, although these were in the majority—viz., nine as compared with five of the atrophic form. In no case did diabetes occur, nor did sugar appear in the urine, but it is obvious that such a condition of pancreatic degeneration must seriously affect nutrition and be a factor in the wasting which attends hepatic cirrhosis. Alcoholic cirrhosis is, indeed, only one phase of chronic alcoholism, yet we are apt to look upon it as if it were the single and

FIG. 6.



Muscle fibres from the left ventricle. Alcoholic cirrhosis of the liver. Sudden death. 1, Transverse section of some of the fibres. A, Nucleus. B, Dark granules. 2, A single fibre magnified about 1000 times to show granular change in the nucleus as well as in the fibre. A, Granules in the nucleus. B, Granules in the fibre. 3, Some fibres in longitudinal section. A, Fatty change. B, Granular change. Osmic preparations: 1 and 2, Stained with safranin. 3, Stained with methyl green.

only result—as if all the evil effect of the poison were concentrated upon the liver alone. The heart, the kidneys, the spleen, the pancreas, the blood-vessels, and the nervous system all suffer, but usually in less degree. The great stress most commonly falls upon the organ which receives the poison first in full flood, but the implication of the others constantly influences the course of the liver affection upon which attention is mainly directed.

LIABILITY TO ERYSIPELAS.

These records also seem to show that persons suffering from cirrhosis, vulnerable in so many respects, suffer from a special liability to erysipelas beyond that common to all chronic exhaustive diseases. Dr. J. Dreschfeld remarked that erysipelas was not uncommon in Hanot's disease, but there is no exclusive association with biliary cirrhosis or, indeed, with hypertrophic cirrhosis as compared with the atrophic kind. In the 53 fatal cases of the last ten years death occurred from facial erysipelas in three. In two other instances of a previous period the fatal issue was due to the same cause—or five cases in all. Of these, the liver was enlarged in three, two of which were syphilitic and one alcoholic. In the remaining two the liver was contracted and hobnailed and the affection was of alcoholic origin.

LIABILITY TO TUBERCULOSIS.

The close association of tuberculosis with cirrhosis of the liver is well known and acknowledged and it is unnecessary for me to do more than allude to it here. It marks again the vulnerability of these subjects of degenerated tissues and is due chiefly, I imagine, to the proved influence of alcohol in favouring tuberculous infection.[4]

LINES OF DEMARCATION BETWEEN DIFFERENT FORMS TOO RIGID.

The evidence which I adduced in the first lecture supports, I think, the opinion which I ventured to express at the outset—viz., that the lines of demarcation between some of the different forms have been too rigidly drawn. They hold good with regard to typical examples only. Take, for instance, the mere question of size and weight. No strict line can be drawn between hypertrophic and atrophic forms, at any rate so far as alcoholic cirrhosis is concerned. The conclusion arrived at by Dr. A. Foxwell that all sizes, from 100 ounces to 30 ounces, are met with is more than borne out by my series of cases, in which all sizes, from 152 ounces to 18 ounces, are found. And thus with regard to other symptoms there are many cases in which the symptoms agree in some respects with those attributed to one form, in other respects with those attributed to another form. It is convenient to divide people morally into the two classes of sheep and goats; but, as a matter of fact, as I think we should all acknowledge, the majority of persons are neither the one nor the other, but something of each; there are many hybrids. And so it is with regard to our conceptions of disease. We look for a strict separation into classes, and the expectation of close conformity to given types is apt to warp our intelligence. It is thus with reference to cirrhoses; they are met with in typical forms, but occur also in various degrees of modification between them. We assume one factor to be alone engaged and expect each case to correspond to the authorised description. Yet the acknowledged causes—alcohol, syphilis, and malaria—are just those which, although they may usually act alone and produce simple results, are, from the very nature of things, liable to be associated, to act together in varying degree upon the same subjects and produce results more or less complex. In these instances the effect of the relative influences at work is not easily estimated. And then there is the fallacy of negative classification. If no alcoholic history is traced the case is called non-alcoholic; if no history of syphilis, non-syphilitic. The fallacy of this with regard to syphilis I have shown, and that it exists largely with regard to alcohol we all know well. Occasionally, as in certain cases of cirrhosis in children, no adequate cause can be discovered. And there are others, again, which differ from all recognised forms and from any combination of the characters of the acknowledged varieties and cannot be traced to the recognised causes. Thus in a case recently under the care of my colleague, Dr. Sidney Phillips—a young man, aged 37 years,[5] with enlarged liver and extreme ascites and no jaundice—the history appeared absolutely to exclude alcoholism and syphilis. He died at the end of a year—from hæmatemesis—having been tapped 35 times. The post-mortem examination disclosed a large hobnailed liver with small patches of perihepatitis. Microscopically, there were multilobular and fine monolobular fibrosis of active cell proliferation, no gross portal obstruction, and no sign of syphilis or of general alcoholic degeneration; there was some fibrosis of the kidney, but this was not extreme, and the heart muscle was firm and healthy. The source of cirrhosis remained undetermined.

PROGNOSIS.

The prognosis in cirrhosis varies according to the particular form in which it appears and the conditions

[4] Dickinson: Transactions of the Royal Medical and Chirurgical Society, vol. lvi., 1873.

[5] Case 2, 1898.

associated with it; yet as set forth by authority in books of medicine it is almost universally and absolutely unfavourable. Its fatality is regarded as inevitable and the end speedy. Thierfelder, speaking of cirrhosis generally, says: "In the cases which have been accurately diagnosticated the termination is without exception death." Frerichs, Niemeyer, and Murchison spoke in like fashion, and more recent authorities are almost equally pessimistic. This unfavourable verdict, more positive than the actual facts seem to me to warrant, has, I think, arisen partly from the use of the generic term cirrhosis when the condition really intended to be indicated is one form of the disease only—viz., the atrophic contracted liver of Laennec. Thus the occurrence of ascites, so significant of evil in that condition, has been assumed to be equally serious in hypertrophic or syphilitic cirrhosis, where its import is less grave.

Cirrhosis is of course incurable. Fibrous tissue is a permanent formation, but it is in itself harmless, it injures only by pressure and it may exist within certain limits for long without fatal issue. In some degrees of it the glandular structure of the liver is not so extensively injured as to render life impossible, and if the obstruction to the direct portal flow is eased by compensatory channels fair health may be maintained for a season.

Cirrhosis is not a disease of rapid development but of slow and gradual progress. It may advance silently and steadily for years before its presence is discovered. The liver is frequently found indurated to an extreme degree and usually enlarged in persons who have died from other causes without the patient having been known to suffer from any marked symptoms of such affection during life. Dr. Hilton Fagge[6] noted that the average age of such persons thus found accidentally to have been suffering from cirrhosis without discovery was on an average five years in excess of the average age of those who died directly from the disease. This would seem to show that the disease is often quiescent before reaching its final stage. The elaborate statistics of Dr. Rolleston and Dr. Fenton[7] give, however, somewhat different results and make the patients with latent cirrhosis slightly younger than those who die from the disease.

Further, as the existence of cirrhosis is commonly betrayed by the supervention of ascites, the estimation of its future course is only made towards the extreme end of it. If the disease could be recognised earlier the prognosis would be in corresponding degree less immediately unfavourable. I have now under my care a gentleman of upwards of 50 years of age, an inveterate spirit drinker, whom I have known for 20 years, who has a greatly enlarged liver, reaching four fingers breadths below the ensiform cartilage, and as hard as wood. He came under my care for influenza, and although I knew his habits of life I knew nothing of any hepatic disorder. He has no ascites, no special symptoms of cirrhosis beyond a passing jaundice, some loss of flesh, venous stigmata on the face, and the large hard liver.

In another instance an old country gentleman of my acquaintance, of alcoholic habits, had to my knowledge a large indurated liver for many years. He enjoyed fair health up to 70 years of age and then died from hæmatemesis supervening upon an attack of pneumonia. He never had ascites or any special signs of cirrhosis except the enlarged liver and a certain alcoholic aspect.

As I write this I have under observation a young man, aged 29 years, of extreme alcoholic habits, taking a bottle of spirits a day, who has already a hard enlarged liver extending two inches below the edge of the ribs. He has no other symptoms except some dyspepsia and palpitation and a slightly dilated heart. There can, I presume, be no doubt that he has early cirrhosis. He is fat and well-nourished and the prognosis depends upon the future regimen.

The prognosis in cirrhosis is, however, almost invariably made with regard to the advent of ascites and turns upon this symptom. The observation of Dr. Bristowe in 1892[8] that most medical men of that time regarded the development of ascites in connexion with liver disease as of fatal omen or, at any rate, as "the beginning of the end" still, I believe, holds true. Yet some masters in medicine have expressed more hopeful views. Dr. Frederick Roberts[9] and Dr. Austin Flint[10] have shown that the supervention of ascites is not necessarily a sentence of immediate death, and have adduced a series of cases in proof of it.

It is not disputed, I think, that occasionally the course of cirrhosis—even after ascites has supervened—is in some cases prolonged for months, and in a few rare instances for a considerable number of years. Hitherto, however, as far as I know, no satisfactory discrimination of the conditions in which a favourable issue may be regarded as possible has been established.

PROGNOSIS IN ATROPHIC CIRRHOSIS.

The first point to lay down is that when the cirrhosis is of the atrophic contracted kind traceable to alcoholic excess the prognosis is the least favourable. If ascites has supervened—as is usually the case when the diagnosis is made—it probably indicates that the disease has reached its final stage. Much, however, depends upon the condition of general nutrition. In proportion as this is satisfactory the prognosis is more hopeful of respite. If emaciation and cachexia have advanced the condition is one of proximate gravity.

EXAMPLES OF MORE FAVOURABLE COURSE OF ATROPHIC CIRRHOSIS.

The course of some of the more favourable cases of atrophic cirrhosis which survive for a time is exemplified by that of the woman previously mentioned who died from intercurrent bronchitis before the liver was so extensively injured as seriously to impair general nutrition. She was a small, tolerably plump, slightly anæmic woman, aged 53 years,[11] admitted into hospital for ascites and hæmatemesis. She had long been a steady drinker, with her husband as a boon companion. He was a carpenter employed in the medical school, whose alcoholic excesses became well known to me when I was brought into contact with him there during my term of office as Dean. The woman admitted that she took half a pint of gin every day in addition to stout, and had done so for the last 30 years. She was tapped twice, about 600 ounces being drawn off. The fluid did not return, her general condition rapidly improved, and she went out at the end of two months in fair health and nutrition. Nine months later she was readmitted. The ascites had returned and the hard edge of the liver could be felt two inches below the costal margin. She was tapped ten days after admission and 198 ounces were withdrawn. There was no return of the effusion, but a sharp attack of acute pleuro-pneumonia developed, probably influenzal, with extensive consolidation, pleuritic and rusty sputum, high temperature, and delirium. Her case was judged to be hopeless, but under the free use of digitalis in doses of 15 drops every four hours given by my earnest house physician at the time and a temporary dispensation of an allowance of wine she had a crisis and to our extreme surprise recovered. A month later she went out of hospital for the second time in a state of comparative health. A month later still she was admitted for the third time, on this occasion with an acute bronchitis of great severity contracted by exposure in the extremely bitter weather which prevailed at the time.

The post-mortem examination disclosed a contracted typically hobnailed, cirrhotic liver, weighing 38 ounces, with thickened capsule, but no general perihepatitis or peritonitis, and no thickening of, or adhesions to, neighbouring structures. It was calculated from general appearances, aided by microscopic examination, that about half of the liver tissue was efficient, the cells being normal and active. The kidneys showed commencing granulation but were not much contracted, weighing four and a half ounces and five and a half ounces respectively. The heart showed advanced fatty changes with so-called tabby-cat striation in a marked degree.

This case is of importance since the patient was not in a condition of emaciation and regained fair general health although 54 years of age. The fact that she recovered from a severe attack of pleuro-pneumonia showed that the liver damage was not so extreme as to be incompatible with a state of nutrition and vigour equal to the strain of acute intercurrent disease and restoration to the previous degree of health afterwards.

The following is another example of more favourable course in atrophic cirrhosis.

A man, aged 43 years, a cabman (formerly a pot-boy), of intemperate habits, was admitted to St. Mary's Hospital on

[6] Principles and Practice of Medicine, third edition, vol. ii., p. 370.
[7] Birmingham Medical Review, October, 1896.
[8] Brit. Med. Jour., April 23rd, 1892.
[9] Practitioner, 1872.
[10] Brit. Med. Jour., 1883.
[11] Case 53, 1891-92.

April 4th, 1894, suffering from ascites. The man was plump, soft of skin, and flabby of flesh. The abdomen was much distended with fluid measuring 40½ inches in circumference. The hard edge of the liver could just be felt below the margin of the ribs, the heart sounds gave a slight apex bruit, and the apex was pushed up to the fourth space. There was no hypertrophy. A few medium moist râles were audible at the base of the lungs. The urine had a specific gravity of 1037 and was free from albumin. He was tapped 19 times between April and August, nearly 3000 ounces being removed. On August 9th he was tapped for the last time. The edge of the liver was not to be felt. The fluid did not return and he was discharged on Sept. 20th apparently well. On June 18th of the following year he called to report himself. He complained of loss of appetite, but he was still plump, with a fair amount of subcutaneous fat, and was moderately well nourished; there was no return of ascites. The liver could be felt just below the costal margin, extremely hard. In the following August he was readmitted for hæmatemesis; the liver could just be felt. There was no ascites. The urine was of specific gravity 1020, with a trace of albumin, and there was a systolic bruit in the aortic area. Hæmatemesis recurred and he died the following day, one and a half years after coming under treatment for ascites. At the post-mortem examination the liver was found to be contracted, weighing 48½ ounces, was markedly hobnailed and tough, and was covered by thick false membrane; the spleen was enlarged; the kidneys were enlarged slightly, but otherwise were normal. The valves of the heart were atheromatous, otherwise the heart was normal. There was no general peritonitis.

A woman, an acknowledged spirit drinker, was admitted into St. Mary's Hospital for jaundice and ascites in July, 1893. She was tapped twice and the ascites not returning she went out apparently well, to be re-admitted in January, 1894, six months later, with a return of ascites. She was again tapped, once only, and remained without much return of fluid until January, 1895, when she was again admitted and tapped a fourth time. By some mischance which could not be traced suppurative peritonitis supervened and the patient died—one and a half years after first coming under treatment for ascites. The post-mortem examination was most instructive on account of the extremely small size of the liver, which weighed only 18 ounces instead of 50 ounces, and was typically hobnailed, with abundant adhesions between the liver and neighbouring organs, great thickening and shortening of the large intestine, the ascending colon being only two inches in length, and the fact that no morbid changes were found in the kidneys.

Take, again, another case, that of a man who came under the care of my colleague, Sir William Broadbent.

The patient was a florid but fairly healthy looking man, aged 33 years, with a history of alcoholism but none of syphilis. He was tapped 11 times between 1893 and 1896, coming into hospital eight times for the purpose. The liver was small, only just felt at first, and at the last visit, in June, 1896, its size could not be made out. The man left hospital at that time apparently well and was lost sight of afterwards.

Let me give another in illustration. The patient, a man, aged 35 years, under the care of Sir William Broadbent, was tapped 11 times. Ascites was first noted in July, 1892. It being found impossible to remove all the fluid a localised collection was suspected and for this laparotomy was performed in December, 1893, nearly one and a half years after the first appearance of ascites. The diagnosis of a localised collection was verified; chronic peritoneal adhesions were found shutting in fluid between the stomach and diaphragm. The operation, however, proved fatal. Post mortem, advanced atrophic cirrhosis, peri-hepatitis, peri-splenitis, and peri-enteritis were found; the kidneys were unaffected.

In this case peri-hepatitis may have played a part in the production of the abdominal dropsy. It seems to me immaterial, except in so far as it might affect the possibility of a favourable issue, whether the fluid was poured out as the direct result of portal obstruction or because of a local peritonitis due to the engorgement of the hepatic peritoneum from this same obstruction, or to alcoholic irritation. The case was one of advanced cirrhosis and ascites. The peritoneal inflammations were not due to Bright's disease for the kidneys were healthy.

In my notes I find a number of other cases of atrophic cirrhosis in which life has been prolonged for considerable periods after the first appearance of ascites. Apart, however, from these observations of mine, there is evidence from other sources as to the occasional prolongation of life in atrophic cirrhosis for a considerable period after the betrayal of its existence by the occurrence of dropsy. One such is recorded by Dr. J. S. Bristowe[12] in which the patient remained well for six years. The man was a drinker, had alcoholic neuritis, and the liver was not enlarged.

The most notable case is one quoted by Dr. H. P. Hawkins in Allbutt's System of Medicine. The patient, a free drinker, came under the care of Dr. Murchison for alcoholic cirrhosis and ascites. From that time he became a total abstainer, and for 12 years enjoyed fair health. At the end of that time he came into St. Thomas's Hospital with granular kidney and peritonitis, from which he died. The post-mortem examination showed a hobnailed liver with multilobular fibrosis and thickened capsule adherent to the diaphragm.

PROGNOSIS IN THE HYPERTROPHIC FORM.

In the hypertrophic form, however, the prognosis is less gloomy. In the majority of cases the disease progresses to a fatal ending, but far less certainly and, as I have seen it, less rapidly than in the contracted form. As I pointed out in 1892[13] it is the *large* liver which gives promise of recovery. Curiously enough, however, according to Dr. Rolleston and Dr. Fenton's statistics[14] and those of Dr. Pitt,[15] patients with enlarged livers who die are younger than patients who die with contracted livers. There is, however, no incompatibility between the two statements. The patients with enlarged livers are younger than those with contracted liver; if they die they die younger probably. This does not, however, affect the question whether more of these recover or prove that although they die younger on the average some do not run a protracted course.

Again, the cirrhosis of the enlarged liver is said to be more acute, and this I believe is so, as I shall show later; but this is only in its development; its after course may be prolonged. In some instances, no doubt, the estimation of the size of the liver during life is liable to error. A contracted liver displaced downwards may be mistaken for actual enlargement, especially in the case of women, and when ascites is present; and, on the contrary, a large liver may be mistaken during life for a small contracted one, when it is bound by adhesions to the diaphragm and tucked under it. Each of these cases has happened once within my knowledge, and once only, I think. In all other cases which have ended fatally and the condition of the liver has been verified by post-mortem examination, the diagnosis of enlargement or contraction has proved to be correct. Be this how it may, however, to put it broadly, the cases which do well are those in which the liver, apparently large, exposes a flat, hard surface to the abdominal front extending far below the edge of the ribs and sometimes down to the umbilicus.

In speaking of recovery in cirrhosis I may repeat it is not suggested that the impossible feat of removing the fibrosis is accomplished, but that changes are effected in the general condition, so that the disease does not progress. The effects of ascitic pressure, for instance, are removed. In alcoholic disease the stimulation of interstitial tissue is arrested; in syphilis gummata are reduced and the formation of fibrous tissue from them cut short; the peri-hepatitis and peritonitis subdued. In this way a condition of stable equilibrium is established compatible with the maintenance of life. In three cases of recovery from alcoholic cirrhosis with ascites recorded by Murchison the liver was enlarged. In another attributed to mitral disease of the heart the liver was enlarged. In one of the four cases observed by Dr. Bristowe the liver was greatly enlarged. In two cases recorded by Dr. Dickinson[16] in which recovery took place after extreme ascites developed, and in one of which the diagnosis was verified on death from cerebral abscess two years afterwards, the liver was described as hypertrophic. In 11 other cases which I have culled from various authorities in which recovery is stated to have taken place and the patient to have regained apparent health for periods varying from one year to 18 years the liver was stated to be enlarged in six, contracted in one, and the condition not stated in four.

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[12] Brit. Med. Jour., April, 1892.
[13] Ibid., Nov. 10th, 1892.
[14] Birmingham Medical Review, October, 1896.
[15] Transactions of the Pathological Society, vol. xl.
[16] Allbutt's System of Medicine, vol. v., p. 612.

FIRST FAVOURABLE CONDITION IS THE LIVER BEING ENLARGED.

This fact of the more favourable prognosis in cirrhosis when the liver is enlarged was recognised by Hanot and Gilbert,[17] who, writing of alcoholic cirrhosis, affirmed that the hypertrophic form was the most curable and that all the most successful cases they had seen were of this type. In my address in 1892 I enumerated eight cases of hepatic ascites in which relief of the ascites and restoration of general health took place. To these cases of recovery, temporary or prolonged, I may add three more, making 11 in all. These are exclusive of those instances in which there was mere relief of symptoms sufficient to permit of discharge from hospital and of private cases which were not traced afterwards. Of these 11 cases the liver was greatly enlarged in seven, considerably enlarged in one, slightly enlarged in two, and in one the condition of the liver was not ascertained. If I add to these cases 24 others in which relief was such as to warrant discharge from hospital, or in private cases cessation of attendance, there are 30 in which recovery, either temporary or prolonged, resulted. I may remark with regard to the St. Mary's cases that they were not merely tapped and discharged at once, but were kept in for considerable periods until recovery appeared stable and maintained. Of these 30 the liver was markedly enlarged in 19 cases, normal or slightly enlarged in 3 cases, smaller than normal in 5 cases, and in the remaining 3 cases the condition was not ascertained. So that here, again, in nearly two-thirds of the cases in which good was effected by treatment the liver was enlarged. One salient feature of the cases which are capable of relief or recovery then is that the liver is enlarged.

FAVOURABLE CASES, BOTH SYPHILITIC AND ALCOHOLIC.

The question may be asked, Were any of these cases of genuine alcoholic cirrhosis or were they merely instances of syphilitic fibrosis? A certain proportion of cases of cirrhosis with enlargement which recover are undoubtedly syphilitic, having a history of, or marks of, syphilis, or yielding to anti-syphilitic treatment—as, for example, a case recorded by Murchison, one by Sir Grainger Stewart, and three under my own care. It must, however, be borne in mind, as I have said before, that there is a close social relation between alcohol and syphilis and that in some instances both these factors may be engaged. Further, in certain instances, as I know by grievous mistakes in diagnosis, syphilis exists when there is no history of it to be obtained, where there is nothing in the physical character of the liver, as far as can be ascertained during life, to suggest it. As I urged before, there may be no history of syphilitic infection or irregularity of surface, no enlargement or marked contraction, and yet the condition be syphilitic. Apart from these cases, however, of syphilitic or mixed syphilitic and alcoholic hypertrophic cirrhosis there are, as has been already shown, instances in which the disease is purely alcoholic in origin. These also are to be included amongst the cases of hypertrophic cirrhosis which now and again recover. Syphilitic cases, it is generally allowed, occasionally recover. A certain proportion of cases of hypertrophic cirrhosis, also, in which no cause except alcoholic stimulation can be traced, in which syphilitic remedies are useless and even harmful, from time to time recover sufficiently to enjoy apparent health for years. Three cases recorded by Murchison were alcoholic in origin. In six cases of hypertrophic cirrhosis under my care which recovered for long periods four were judged to be purely alcoholic, one alcoholic and probably syphilitic also, and one syphilitic and probably also alcoholic.

GOOD NUTRITION THE SECOND FAVOURABLE CONDITION.

Another condition, in addition to the hypertrophic enlargement which marks the cases promising recovery, is the state of general nutrition. The patients who recover are, as a rule, comparatively healthy in appearance, not emaciated and not cachectic. The significance of this lies, of course, in the evidence it affords of the efficiency of the vital functions of the liver. It shows that sufficient gland structure remains intact to serve the purpose of nutrition. In some cases of syphilitic affection which get well the cachectic state may be marked. In the pure alcoholic case, however, all the patients who have recovered within my personal knowledge have been in fair condition generally, not notably cachectic or greatly emaciated.

[17] Archives Générales de Médecine, 1890, vol. clxvi., p. 250.

YOUTH A THIRD FAVOURABLE CONDITION.

Another feature of the cases which are of more favourable prognosis is that they are as a rule younger than those which end fatally. Of the 11 cases of recovery which I adduced I omit five in which the further history was less perfectly traced. In the six others the later career was ascertained for periods ranging from six months to 11½ years. The average age is just over 39 years (39 years and five months). In 31 cases of recovery recorded by others the average age is, curiously enough, almost exactly the same, just under 39 years. Further, in the enlarged liver we find a texture tough and hard, but not that leathery hardness and toughness of the contracted form; there is nowhere any tendency to contraction unless it be a little drawing in of the surface at interlobular points, giving the appearance of slight granulation. Microscopically, the connective tissue development is as a rule in a more active stage than in the atrophic form, the fibrosis is more diffuse and finer and one in which cell proliferation is conspicuous. Thus in the case[18] of extreme alcoholism in which the liver weighed 114 ounces the liver was smooth without thickening of the capsule or any peritonitis, and the cellular connective tissue elements were greatly increased, but the fibrous tissue was imperfectly formed. In another,[19] not traced to alcohol, in which the liver weighed 72 ounces, the same active cell proliferation was observed. In the case of the boy[20] with enormously enlarged liver, previously described as probably a cirrhosis of congenital syphilis, this appearance of active cell proliferation and imperfectly developed fibrosis was most conspicuous. In a case of hypertrophic alcoholic cirrhosis recorded by Murchison, in which the liver weighed 80 ounces, the nuclear element was observed to be extremely abundant. This sign of an active process appears to prevail chiefly in hypertrophied forms and suggests a more acute condition than the mature fibrosis of the contracted form which bears evidence of a more chronic and advanced development. Possibly in some instances of early atrophic cirrhosis nuclear growth may be present; in cases, however, which progress to a final stage and death comes directly from the liver affection the contrast between the two conditions of fibrous change is generally distinctly marked. Dr. Price,[21] as the result of his investigation of 143 cases of cirrhosis, came to the same conclusion—viz., that the large cirrhotic livers represent a more acute form of the disease than do the small. If these conclusions are confirmed I think that some of these cases of hypertrophic alcoholic cirrhosis in younger subjects might be termed acute cirrhosis, set up by more acute and extreme drinking of more copious and more diluted solutions, as contrasted with the cirrhosis of older persons whose steady and protracted but less intense drinking of more concentrated solutions spread over many years produces a more dense and mature fibrosis, with greater destruction of secreting tissue.

The characteristics, then, of these cases of cirrhosis which are more amenable to treatment and run a more favourable course to arrest or recovery—viz., an enlarged liver, the earlier age of the subjects, and the fact that they are generally in a condition of good nutrition and not emaciated, cachectic, alcoholic wrecks—are, I think, important. They all point to the conclusion that the morbid change is of a more active character than in the less favourable contracted form of cirrhosis, when the invading tissue is of a more gradual and slower growth and in a more advanced state of formation.

DISTINCTIVE FEATURES OF THE FAVOURABLE CASES.

To sum up. The distinctive features of the favourable cases are: 1. The liver is large and the cirrhosis is probably more acute. 2. The subjects are, on the average, younger than in the less favourable cases of contracted liver. 3. They are in a condition of fairly good nutrition. Lastly, they are, as a rule, either exceptionally hard drinkers, acute drinkers, or they are syphilitic. It may be asked with regard to these cases of apparent recovery in syphilitic and alcoholic cirrhosis, as shown by subsidence of ascites and recovery of general health, how far this remained permanent. There is nothing more difficult, as every hospital physician knows, than to trace out cases to

[18] Case 8, 1898. [19] Case 2, 1899.
[20] Case-book, 1883.
[21] Guy's Hospital Reports, series iii., vol. xxv.

their conclusion. Leaving aside all which have been lost sight of quickly I have been able to follow out the history with some completeness in six instances—viz., for considerable periods varying from one to 12 years, two to my knowledge surviving to this day; others I have observed for less, although for considerable, periods, at the close of which the recovery remained unimpaired. To show more completely the course and character of these cases I shall state some of their salient features when I come to speak of Treatment in the next lecture.

ERRATUM.—In Dr. W. B. Cheadle's first Lumleian Lecture (THE LANCET, March 31st, p 935) the heading "Ascites in Atrophic Cirrhosis—its Significant Viability in Atrophic Cirrhosis," should read thus: "Ascites in Atrophic Cirrhosis—its Significance—Viability in Atrophic Cirrhosis."

The Lettsomian Lectures

ON

PRACTICAL OBSERVATIONS ON CANCER OF THE BREAST.

Delivered before the Medical Society of London on March 5th and 19th and April 2nd, 1900,

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LECTURE III.[1]

Delivered on April 2nd.

THE PARASITIC AND INFECTIVE VIEWS OF CANCER.

MR. PRESIDENT AND GENTLEMEN,—It would be out of place here to enter into a detailed history of the early searchings after truth in this matter, for, however praiseworthy, nothing definite came of them. The first notable step in advance was made by Dr. W. Russell of Edinburgh in 1890. In the *British Medical Journal* for December of that year will be found a paper by him modestly entitled "The Characteristic Organisms of Cancer." Seeing that they were well displayed by staining with fuchsin he termed them "fuchsin bodies." The attaching of men's names to all sorts of silly little discoveries and operations is much to be deprecated, but so important a move in the right direction might well be commemorated by designating them "Russell's Bodies." He described them both as intra-cellular and extra-cellular, and, what is of much importance, he held them to be blastomycetes, a variety of the saccharo-mycetes of yeasts. The general opinion was distinctly against him, but in 1892 appeared a paper by Professor Soudakewitch[2] of Kieff describing and figuring bodies obviously very similar to Russell's Bodies, and in the same year there appeared a very important contribution by Armand and Ruffer[3] containing confirmatory evidence. Preparations illustrating both these papers were shown to Metchnikoff and that distinguished pathologist gave it as his opinion that the bodies were "parasitic protozoa." This at once altered the venue from the vegetable kingdom to the animal kingdom. In this country the fuller investigation of the parasite has been very ably carried on by Mr. H. G. Plimmer of St. Mary's Hospital. In the so-called Cancer Number of the *Practitioner*, already referred to, will be found a review by him of the whole question up to April, 1899. It is a model of clear and unbiassed writing and the descriptions of the general structure of cancer and methods of examination are most admirable. For a considerable time my friend and old pupil, Dr. R. J. M. Buchanan, formerly assistant demonstrator of physiology in University College, Liverpool, and now physician to the Hospital for Consumption and Diseases of the Chest at Liverpool, has been investigating these parasites, and in January, 1900, he contributed a paper upon them to the Pathological Section of the Liverpool Medical Institution. I have had the pleasure of going over all his work with him and I cannot help coming to the conclusion that the bodies described as parasites are bodies *sui generis*—special organisms—and are not degenerations of cell protoplasm or of non-parasitic cell inclusions. It seems as if the almost daily increasing evidence is now too strong to permit of our simply listening to those sceptical persons who merely deny their existence without having ever hunted for them or even seen them. Where these bodies come from, where they go, or what they do, is nothing to the point for the moment. The question is, Do they exist? I have been convinced that they do exist.

A very reasonable question on the part of the doubter is this: Cannot these said parasites be found in structures other than carcinomata and sarcomata? After Russell's pronouncement many investigators said that this was so, but, as time has gone on, they have failed so far to prove their case. On the other hand, Mr. Plimmer's most extensive inquiries have gone all the other way. During the six years preceding 1899 he had examined microscopically 1278 cancers taken as they came from many parts and organs and of all possible varieties. Out of this number he has found the parasite in 1130 instances. Of the cases in which he failed to find them 63 were densely fibrous and atrophic, actually in process of spontaneous cure, and 23 were so degenerate that they would not stain. He has examined by his method gummata, typical histoid tumours of all kinds, tuberculous growths, glanders, actinomycotic growths, epithelium which had been artificially irritated, and normal tissues, and never in man in any instance has he seen any intra-cellular or extra-cellular bodies like the parasitic bodies he describes or any which had their reactions.

The opinion of Metchnikoff that the parasitic bodies were protozoa was for a while the dominant one with probably all investigators. But Dr. W. Russell's view that they were blastomycetes has been revived by two eminent Italian savants, whose names are at present in the mouths of all who are interested in the question. One of these is Professor Sanfelice, director of the Institute of Hygiene in the Royal University of Cagliari, and the other is Professor Roncali of Rome—the former working largely from the experimental point of view and the latter from the histological. Their opinion is distinctly that the parasites are blastomycetes. Mr. Plimmer, however, still holds to the protozoal view, as the better for provisional acceptance until more is known. It is clear that the question is not a vital one, and that, at all events, it does not in any way hinder the experimental work now going on and having for its object to prove that these bodies, when separated from the other constituents of a cancerous growth, when cultivated and the cultivated products implanted in animals, will be reproduced in these animals and originate cancer in them.

What, then, is the appearance of these parasites? As I have seen them in Dr. Buchanan's sections they are round cells possessing what would correspond to a central nucleus, a surrounding mass of indefinite protoplasm, and an enveloping cell-wall or enclosing capsule of some kind. These general features have been brought out by different investigators in different ways, but the plates published by them show a great uniformity in the general appearance of the parasite. The method of display pursued by Dr. Buchanan is this. As fixing reagents he used (1) a saturated solution of perchloride of mercury in 0·75 salt solution in which the specimen was placed for 24 hours and then transferred to methylated spirit to which had been added a few drops of saturated solution of iodine in alcohol; (2) bichromate of ammonia; and (3) Fleming's solution. As regards staining processes he found the Ehrlich-Biondi tripie stain very good but apt to fade too quickly. Another method is to stain with Ehrlich's acid hæmatoxylin, wash in distilled water and then "blue" in distilled water rendered faintly alkaline with lithium carbonate. Again, another method is, stain with saturated aqueous solution of fuchsin S. or carbol-fuchsin S., then dehydrate in absolute alcohol strongly tinged with aurantia, clear in clove oil tinged with aurantia, and mount in xylo-balsam. The size of the cells is very various. Mr. Plimmer reckons them at from 0·004 millimetre to 0·04 millimetre or even more. I have seen some which have a circumferential row of fine dots disposed just within the capsule and others in which the nucleus has an appearance of being split up and the portions

[1] Lectures I. and II. were published in THE LANCET of March 10th and 24th, 1900, respectively.

[2] Parasitisme Intracellulaire des Néoplasies Cancereuses: Annales de l'Institut Pasteur, 1892.

[3] Journal of Pathology, 1892.

somewhat twisted. Again, there are some which have most delicate lines radiating from the centre to the circumference. Some writers have described and figured quite an array of different forms of the parasite, but personally, possibly owing to my want of skill, I have not been able to make sure to myself of more than the varieties mentioned above. As far as regards their mode of reproduction, Mr. Plimmer is of opinion that it is by division into two by the process of budding, or that the nucleus divides into two while the capsule throws in septa which meet between these two halves and so divide the parasite into two. Dr. Buchanan believes that reproduction is effected by sporing, although in his specimens I have not been able to make sure of anything definite as regards this point. In a recent interview which I had with Mr. Plimmer he most kindly showed me his specimens and gave me the very beautiful one which I show you to-night. Those of you who may care to turn back to his article in the *Practitioner* will see that Fig. 1 in Plate 1 represents this in the most faithful manner. I also saw specimens identical with Fig. 8 in Plate 2, where the nucleus, becoming somewhat oval, had then divided into two.

I would like here to quote some of Dr. Buchanan's conclusions. He says: "By careful comparison I found in these bodies a constant recurrence of definite structure, a beauty and regularity of design marked by stages of enlargement and growth with many evidences of a truly developmental process. Degenerative processes are essentially irregular with no definite recurrence of form and with no beauty of design. I entertained two ideas. 1. That if these bodies were truly parasitic from without two conditions were necessary for their entrance into cells: (*a*) either they must be capable of movement constituting change of locality; or (*b*) the (epithelial) cancer cell must be capable of movement sufficient for it to enclose the parasite—or a combination of both conditions at one time. 2. That as a cancer is progressive in growth the parasite must develop *in situ;* if it does not, then, if it be an exciting cause, the growth must eventually cease." He then goes on to express his opinion that the parasite is capable of movement and that its appearance in many cases is due to definite change of shape (such as is generally recognised in amœboid cells); that in its young state it enters a cell and there develops, dividing and re-dividing into a number of spore-like bodies which may eventually fill and swell the capsule into a cyst in which the spore bodies lie like a mulberry mass and the cyst resembles a sporocyst; that these spores eventually find exit from the capsule, probably through a special aperture, whence they infect other cells; that the parasites are probably fertilised to ensure reproduction, although the method has not yet been demonstrated; and that they are living entities introduced from without to whom the cancer cell occupies the position of a host.

It has been matter for wonder why, if the parasites are such well-defined bodies, they have not been noticed long ago. But the fact is that on any average tumour they are comparatively few in number and have to be searched for; and—a most important point—they are not to be found in the hard centre of a scirrhous mass at all, but only at the growing edges of a tumour. The centre is largely composed of fibrous tissue and cells in course of degeneration. It is the inactive part of the tumour, where nature is making an effort at cure. All the vigorous proliferating epithelium is at the margin and it is only inside active cells that the parasite is found. Then the processes of staining required to display the parasites are very delicate and complicated and are really only the product of the last few years.

Ignoring, then, the question of whether the parasites are to be considered as yeasts and to be named "blastomycetes," or whether they are protozoa or coccidia, has anything experimental been done with them? I will begin with some recent observations made by my friend Mr. Keith W. Monsarrat, assistant surgeon to the Liverpool Infirmary for Children, in order, if possible, to confirm the observations of Sanfelice, Roncali, and others. Having obtained a fresh cancerous tumour he made into its outlying parts a series of some 20 or 30 incisions with a sterilised knife. Scrapings were taken from the edges of these incisions and inoculated on glucose agar. From this culture subcultures grown on wort agar and wort bouillon were employed and were plentiful after 24 hours' incubation at 37° C. From this, again, guinea-pigs were inoculated by intra-peritoneal injection of 1 cubic centimetre of a culture 48 hours old. They showed no symptoms of illness and were killed at periods of from two to six weeks after the injection. On opening the abdomen the omentum and general peritoneal surface were found to be studded with nodules from the size of a pea to that of a pin's head. To the naked eye nodules were visible in the lungs, liver, spleen, and kidneys. The parasites were found reproduced in the cultivations and in the inoculation growths. Mr. Monsarrat employed the following staining process for them, which he believes very accurately differentiates them and picks them out from surrounding structures. Fix with saturated solution of perchloride of mercury and harden in alcohol; place in acetic carmine for half an hour and then wash in water, followed by two minutes in methyl violet 1 per cent., and two minutes in picric acid 25 per cent., and then transfer to clove oil until no more methyl violet will come off. The primary growths on the peritoneum are composed of proliferated endothelial cells. The organisms are present in considerable numbers, some within the cells but most outside them. This is contrary to what occurs in primary cancers in the human body where the extra-cellular parasites are few in number compared with the intra-cellular. In many of the nodules there is some attempt at the formation of a connective tissue capsule and in others the central parts are broken down. In the lungs the nodules are made up of endothelial cells; in each nodule there are organisms present and usually centrally situated. In the liver and spleen the nodules are very similar in appearance to the primary omental growths. The origin of the cells composing them is doubtful. In the kidney, where, again, the nodules are of endothelial origin, the cells are derived from those lining the Malpighian corpuscles and tubules. In no case was there any alveolar arrangement of the cells or any appearance resembling the endotheliomata of man. With regard to the cultures, the appearances agreed in the main with those described by Professor Sanfelice and Mr. Plimmer. Fresh specimens from them are spherical, they are from four to 10 micro-millimetres in diameter, and in most instances they take an aniline chromatin stain diffusely.

I think we may regard Mr. Monsarrat's work as quite confirmative of what Mr. Plimmer has detailed with such admirable clearness and precision in the Cancer Number of the *Practitioner*. There his own experiments on the same lines are to be found and also the fullest directions for staining according to the methods which he has found the best and which produce specimens at once beautiful and convincing. To anyone who wishes to know about the parasites of cancer this article is invaluable. But what has been briefly touched upon in this description regarding the results of the inoculation of animals with the parasite has been far outdone by Sanfelice, who began his researches in 1894, and whose last conclusions were published in 1899. Dr. W. Russell has written a most admirable summary of Sanfelice's last experiments.[4] If you will allow me I will give you the barest outline of them. Sanfelice was investigating the characters of blastomycetes when he found that some of them were pathogenic to animals and caused the growth of tumours in them. He selected a special organism for purposes of experiment, which he denominated the "saccharomyces neoformans." Inoculations of guinea-pigs with it produced a general infection of the animal with the formation of tumours, consisting partly of masses of the parasite and partly of proliferation of the cells of the part. The general microscopic appearance of the new growths seems to have been pretty much what Mr. Plimmer has recorded as the result of his experiments and what Mr. Monsarrat has described as produced in his, as we have just noted. Bodies were perceived having the appearance of what the earlier investigators described as coccidia (protozoa), and what Dr. Russell had described and regarded as blastomycetes. These bodies as found in the tumours differed somewhat from those in the cultures as regards appearance. He inoculated with pure cultures of the saccharomyces neoformans certain cats and found typical forms of Russell's bodies in the tissues. To make sure of the matter he investigated the tissues of normal cats but no parasites were found in them, although this occurred invariably after the injection of the special blastomyces. The cats, in short, were very susceptible. (Cats, by the way, are liable to cancer, although not nearly in the same proportion as geldings.) Next the experimenter proceeded to pass the blastomyces with which he was experimenting through a number of dogs, that is from dog to dog. In two instances something very specially tending towards malignancy was produced. In one case the dog was

[4] THE LANCET, April 29th, 1899, p. 1178.

inoculated in the two posterior nipples with the blastomyces which had been passed through several dogs. The animal died 10 months later with tumours in both teats, showing retraction of the nipples and tacking down of the skin with secondary growths in the inguinal and abdominal glands. All these showed the type of adeno-carcinoma. In the other case a dog which was inoculated in both testicles died with adeno-carcinoma of these organs with secondary growths in the neighbourhood of the penis and glans. If all this be true it will constitute a remarkable advance in the history of the parasitic view of cancer, more especially when it is considered that these experiments were conducted with cultures made from an organism obtained from a fruit juice. These he found much more active than the cultures made from cancer. I have seen a microscopic section of a tumour produced after passing a blastomyces through many animals, but I confess I could not recognise in it a typical carcinoma, although it assuredly tended in that direction and had a certain amount of connective tissue in its composition.

If I were now asked what was the impression produced on my mind by what I have seen and read about the so-called "Russell's bodies" or "cancer parasites" I would put it briefly thus: 1. There is plainly a structure of a definite nature which is found in man at the marginal or growing edges of carcinomata. It is not found in any healthy tissue or in any other neoplasm except sarcoma. It used to be regarded as a protozoon or coccidium, but most investigators seem now to regard it (as Dr. Russell did at first) as a blastomyces, which is a form of saccharomyces, reckoned to be a development stage of certain fungi. Most parasites are inside the epithelial cancer cells, but some are outside. There is a strong probability that they spread by sporing, although much more knowledge on this point is wanted. How they get into or originate in the human body is not known, and what action, if any, they have upon the epithelial cells has not yet been demonstrated. But, admitting an action, it is doubtless that of an irritant to them, which causes them to proliferate. 2. There is no doubt that from these parasites cultivations in certain media can be made, and that when such are injected into animals growths are produced in them, mostly of a fatal character, which contain these parasites. 3. Sanfelice asserts that he can produce the same results in animals by the injection of a blastomyces obtained from a fruit juice; furthermore, that by passing the parasites through a series of animals a tumour is at length produced which is an adeno-carcinoma. On these points I cannot say anything of my own knowledge beyond what I have said a few sentences back regarding a section of such a tumour which I have seen. 4. That as yet there is no clear and indisputable proof of the infectivity of cancer; that consequently any strong assertions to that effect or any statements that surgeons infect wounds by disseminating cancer products through them during operations are not justified; that, on the other hand, the possibility of this infectivity must not be sneered at or treated lightly in view of the remarkable information which has been obtained during the last few years concerning the cancer parasite and certain of its attributes. This is not the time for positive assertion; this is the time for patient experiment and the collection of facts.

OPERATIVE PROCEDURES IN MAMMARY CANCER.

When I left my medical school in 1862 my recollection of operations for cancer of the breast was that they consisted of local removals of the tumour of the most imperfect description. If any glands were affected, not merely in the case of breast cancer but in all instances, *ipso facto* that was a sufficient bar to any operation. In 1867 Mr. C. H. Moore of the Middlesex Hospital, whose experience of cancer in that institution was great, wrote what is now an almost historic paper on "Inadequate Operations in Cancer," which set a great many minds thinking, inasmuch as it was a revolt against constituted authority. It made me think, too, so that I became deeply interested in the question. I hope that in what I am about to say I may not appear to be too self-satisfied with what little share I have been enabled to take in it, but this does seem an opportune occasion for presenting to the medical public a review of the history of the operations for mammary cancer, seeing that the changes that have occurred in a very brief period have been of profound moment, and what has been done only a few years ago seems wonderfully soon forgotten. Well, then, during the 10 years following Mr. Moore's protest great progress was made by the persevering and bold manner in which Lister and Bryant and Annandale and Heath and other able surgeons attacked secondary glandular growths and demonstrated that all that was required for their safe removal was careful patient dissection. Among English-speaking surgeons Samuel Gross of Philadelphia was the next who made a notable move in favour of the free removal of breast cancers,[1] and to him much is due for the earnestness and enthusiasm with which he pushed his case—as will be remembered by all those who, like myself, had the privilege of being his friend.

My first paper on the subject was read to the Lancashire and Cheshire Branch of the British Medical Association in 1877 and was termed "A Plea for the More Free Removal of Cancerous Growths." In it I said: "I can point to several cases of hard scirrhus of the breast in which the whole mamma has been removed which have now remained well for years. There is no mystery about this, all that is required is to take the precaution to cut freely through sound textures. *But this is exactly what surgeons will not do.* I have over and over again watched a surgeon remove a breast and have seen him make his incisions so as to include a little elliptical bit of skin containing the nipple, after which he would proceed to scoop out the breast so as to get nice flaps, which fell easily together and covered in the wound. He never considered that in the brawny dotted skin over the tumour were already implanted the germs of the disease and that the most dangerous thing he could do was to leave plenty of skin—skin, one of the tissues above all others along which cancer cells love to make their way. I can safely affirm that in the great majority of operations for cancer which I have seen, and they are not a few, the cancer has not been removed root and branch. When the tumour has been carefully locked at after the excitement of the operation has been over there has generally been found some spot where everyone wished that a bit more had been taken away. Not long ago I was looking over some old illuminated manuscripts. Among other pictures of the tortures inflicted upon the faithful there was one in which a horrid wretch was represented with a great crooked knife mangling the body of a devout female. He had slashed off one breast, the former site of which was represented by a great bleeding chasm, while with one hand he was clutching the remaining organ and with the other was preparing with one sweep to lop it off also. I could not help wishing that I had this picture to hang up in the students' room in our school, not *in terrorem*, but as my idea of what most amputations of the breast ought to be; not a niggling, half-and-half digging out of the tumour but a radical sweeping away of the whole mamma, skin and all. ..... I have a very strong notion that it would not be a bad plan when removing a breast always to clear out the axillary glands whether we can feel anything wrong with them or not; and I mean to try it. At present we only remove the glands when we can distinctly feel them enlarged, and that frequently through a great deal of fat and a thick skin. How do we know they are not already affected? And then the patient disappears and doesn't return till the axilla is full and the great vessels are so mixed up with the disease that we despair about being able to clear everything out and so leave her alone. ..... By disabusing the lay mind of the unreasonable dread of operation the public will come to regard an operation for cancer in the same light as they do an operation for stone or for cataract; a bad job at the best, they will say, but still with a prospect of ultimate cure. They will come to us when their cancers are small and request us to remove them, and, if we could only extirpate them freely, what might we not expect? Have you ever imagined what the results would be if all cancers were thoroughly excised when they were no bigger than peas?" 23 years have elapsed since I said the above words and I have very little more to say now.

In 1880—three years after the above—appeared Mr. Samuel W. Gross's admirable work on "Tumours of the Mammary Gland." In it occur the following sentences:—"This point demonstrates that the wiser course is to explore the axilla, even if its glands cannot be detected from without. By clearing out that cavity in all operations we may naturally expect to diminish, if not prevent, further local dissemination and remove foci of general infection."

[1] Tumours of the Breast, 1880.

My next papers, on "Free Removal of Mammary Cancer with Extirpation of the Axillary Glands as a Necessary Accompaniment," were read before the meeting of the British Medical Association in Worcester in August, 1882, and to the Medical Society of Liverpool in the same year. They are in purport the same paper. The results of 46 cases were given. May I quote a paragraph or two from this paper? I said, referring to my paper written in 1877: "In this paper it was asserted that surgeons do not remove cancers of the breast. After an interval of five years I feel obliged to re-assert the statement. Surgeons, as a rule, do not remove cancers of the breast. They persuade their patients that they do and they almost persuade themselves. But there is always that little bit which they leave behind and which they fondly hope will not grow because it is such a little bit. Alas! that so little leaven should leaven the whole lump. ..... In the present paper a principal object is to advocate the removal of the axillary glands as well as the breast in *all* cases, whether we can feel them enlarged or not; in fact, to make a clearing out of the axilla a necessary part of the operation for removal of the breast. I have been quietly practising this for three or four years, having been driven to the conclusion that it was the right thing to do by discovering that, even in those cases where certain glands could distinctly be felt enlarged when the axilla was opened, small ones were discovered which although most palpably affected were quite incapable of being affected from the outside. From this it follows that the usual fumbling in the axilla which is commonly practised is all nonsense. When the glands are as big as walnuts any first-year student can tell that they are affected. But what I wish with all earnestness to insist upon is that there is a stage—the earliest stage—when they are certainly infected, although to the touch, through layers of fat and skin, nothing amiss can be felt. When a dresser at the end of his report upon a case of mammary scirrhus winds up with the stock phrase, 'Glands in the axilla not affected,' I immediately stop him with 'How do you know? All that you should say is that you can't feel them, which is a totally different matter.'"

In 1887 I read a paper to the Harveian Society of London, entitled "Extirpation of the Axillary Glands a Necessary Accompaniment of Removal of the Breast for Cancer," with details of 82 cases. I there reiterated the points which I have just alluded to, and added some others which had struck me. "Having cleared out the breast I do not cut it adrift, but leave it suspended by its upper and outer end. I next open the axilla and in so doing carry away a continuous mass of tissue upwards from the mamma with the object of including in it all the lymphatic vessels going from the breast to the glands. This is an important step and should never be neglected. ..... I have tied the axillary vein at least half a dozen times, and there was not the slightest difference afterwards between these cases and others, so that it seems certain that careful ligature thereof is not in the least a dangerous proceeding. Is it necessary to divide the pectoralis major? Very seldom, I think. I imagine that out of my 82 recorded cases it was not done more than two or three times. If the floor of the axilla has been widely opened and if the arm is properly drawn up you can feel with your finger quite well up to the clavicle and pinch or pull down glands from the very top of the cavity. Dividing the pectoral muscle adds somewhat to the tediousness of the operation, but that is all."

Seeing that my paper, although urging the employment of a much more extended operation than that usually performed, did nevertheless seem to prove that greater immunity from recurrent disease was obtained thereby, I had hoped to have received some little encouragement from the London surgeons present at the meeting. Exactly the reverse was the case. In the *International Journal of the Medical Sciences* (1888) is a most important paper by Mr. Samuel Gross in which he said: "In the remarks on Banks's paper at the Harveian Society in the spring of 1837, in which that surgeon reported 82 cases of extirpation of the breast along with the axillary contents, Bryant and Butlin questioned whether the complete operation afforded better results than the incomplete, and Butlin, Pick, and Cripps held that clearing out the axilla in every case was neither necessary nor judicious, although Pick asserted that the skin should be freely removed. Owen was the only member who gave cordial support to the procedure urged by Banks, the prevailing opinion being that the operation was attended with an excessive mortality and did not lessen the risk of recurrence." Mr. Thomas Smith, by the way, thought that the patients lived longest who had never been operated upon and that it was a question for consideration whether a local excretion of cancer did not render patients less liable to constitutional disease. I returned to Liverpool very much downcast after this meeting, but I am glad to think that after 13 years Mr. Edmund Owen and I are here to-night to rejoice in the complete triumph of the principles for which we contended on the night of March 3rd, 1887.

MR. BUTLIN'S VIEWS.

"Before I enter on the discussion of this question let me say that no personal feeling exists between myself and those who hold the doctrine of extensive operation, and that if I speak at any time warmly on the points under discussion it is because the subject is one in which I take the warmest interest and on which I hold very decided opinions. I entertain a great respect for both Dr. Gross and Mr. Banks, and only mention their names as the distinguished leaders of a school of surgery from which I venture to disagree." Mr. Butlin was good enough to make these very kind remarks in 1887 and I would like here entirely to reciprocate them. After this very generous introduction, however, he made some criticisms which I am sure he will forgive me reproducing here, along with some remarks made in 1881 and 1898.

1881. *From the Transactions of the International Medical Congress.*—Mr. Butlin said that he quite agreed with Dr. Gross that in the case of any tumour of suspicious character the sooner it was removed and the more freely it was removed the greater were the prospects of complete recovery; and further, he agreed thoroughly with Dr. Gross that in the case of carcinomatous tumours it was highly desirable to extend the operation so as to examine the axilla, if there were any doubtful fulness, even though no definite enlargement of the glands could be detected.

1887. *From the Operative Surgery of Malignant Disease.*—Mr. Butlin wrote that no prolonged search need be made for the lymphatic vessels lying between the breast and the axillary glands. If there were not any distinct cords to be felt running up into the axilla it was not necessary to search for the lines of lymphatic vessels or to remove a large quantity of the fat and other tissues in order to insure their removal. Referring to Gross and Banks, these surgeons were in the habit of cutting off the mamma with all the skin which covers it, *dissecting off the fascia from the pectoral muscle*, searching for outlying lobules of the gland in the surrounding tissues, carrying the incision into the axilla, whether enlarged glands were previously felt there or not, and clearing out the glands and all easily removeable structures. Both surgeons were impressed with the absolute necessity of very extensive operations if the patient was to be afforded a reasonable chance of complete recovery from the disease. Both surgeons had pushed this teaching so far that it had already gained many adherents, although he believed rather among foreign than among English surgeons. Indeed, he was surprised to find how strong an opinion was expressed against it by some of the English operating surgeons at a recent meeting of the Harveian Society in the discussion of a paper by Mr. Banks. As he entirely disapproved of this wholesale way of treating cancers of the breast and believed it to be unscientific and needlessly cruel to many women he would venture to criticise it as thoroughly as he could. The operation recommended by Banks was not such an operation as that which was frequently practised in London and provincial hospitals, but was much more sweeping, for it included the whole of the skin over the breast and not merely over the tumour. In fact, the breast was, so to speak, lopped off as if the operation had been performed with a sword or a carving knife. Now, he quite admitted that if the entire breast was to be removed in every instance of cancer the operation should be of this sweeping character. But he was strongly of opinion that the practice of removing the whole of the breast in every case was theoretically and practically wrong. Probably a long time and much false reasoning were required to induce the acceptance of the doctrine of the necessity of the removal of the mamma for cancers of small size limited to a part of it; and he was afraid a still longer time and much good reasoning would be required to convince surgeons that the practice was radically wrong. So far as the removal of the glands was concerned, by all means let them be removed when they can be felt enlarged and appear to be within reach of removal, and in cases in which there was a

doubtful fulness which was not apparent on the other side. But let no theoretical considerations lead them further than this, and on no account let the axilla be opened in search of diseased glands of the existence of which there was not the least outward or palpable sign. In reply to all the arguments he had brought forward Mr. Banks had at his command a very strong answer—viz., his results. He quite admitted, and with very great pleasure admitted, that, so far as his later results were concerned, they were the best he had ever seen from operations performed with the knife. The superiority of these statistics may be accounted for, not by the fact that the entire breast was removed in every instance, but because Mr. Banks was in the habit of sweeping away the disease itself and the surrounding textures in a fashion at which most operators would be horrified.

1898.—In the number of the *British Medical Journal* for Nov. 26th, 1898, Mr. Butlin wrote that he had read Professor Halsted's paper on the Results of Operations for the Cure of Cancer of the Breast (1894), and his results appeared to him to justify a thorough reconsideration of the subject of the operative surgery of cancer of the breast. This operation was suggested by a paper in Langenbeck's *Archiv* (1889) on the Causes of Local Recurrence of Cancer after Amputation by Dr. Heidenhain and he studied it along with a paper on the Surgical Anatomy of the Breast and Lymphatic Glands, reprinted from the *Edinburgh Medical Journal* (1892), which the author, Mr. Harold Stiles, had been so kind as to send him. Both authors had come to the conclusion, from a general and microscopical examination of a number of breasts which had been removed, that cancer of the breast rapidly extends back towards and then into the pectoral fascia, even when there appears to the naked eye to be a considerable interval between the posterior border of the tumour, and that the pectoral fascia is often very difficult to separate satisfactorily from the surface of the muscle. Looking back on his own clinical experience in order to see how far it seemed to be consistent with the investigations of Heidenhain and Stiles he could quickly remember several cases in which recurrence had taken place in the substance of the pectoral muscle after the removal of a cancer which appeared to be quite separate from the pectoral fascia and even after the fascia had been roughly dissected off. (Then followed a long description of Halsted's operation with Mr. Butlin's expressions of belief in its value.)

Now if any gentleman will take the trouble to turn up Mr. Butlin's work on "The Operative Surgery of Malignant Disease" he will find that the last chapter is devoted very largely to three things: (1) a subdued admiration of a certain Dr. Bougard of Brussels who used caustic paste for the destruction of cancerous mammæ as well as of the axillary glands down to the vicinity of the main vessels and nerves; (2) an advocacy of the mere removal of malignant tumours of the breast and nothing more, seeing that the evidence for the removal of the entire breast was only very partially true; and (3) a very sharp attack upon the doctrines then being promulgated by Dr. Gross and myself. Dr. Gross presently wrote these words: "Had so good a pathologist as Butlin been in possession of the facts derived from my practice and that of Kuester he would scarcely have given utterance to so pernicious a doctrine—a doctrine which, we fear, will so influence English surgeons as to counteract in great measure the recent advances that have been made in the treatment of carcinoma of the breast."

For myself I offer no criticism. I have merely quoted the *ipsissima verba* of Mr. Butlin in 1881, 1887, and 1898, and leave them to the consideration of the surgical profession.

HALSTED'S AND OTHER OPERATIONS.

In the *British Medical Journal* of Dec. 5th, 1898, is a very full description of Halsted's operation. It contains 15 paragraphs with very minute details down to the grasping of the tumour with the left hand and the scrupulous dissection of the axilla with "the sharpest possible knife." The only points of any fundamental importance in which it differs from the operation ascribed by Mr. Butlin to myself (just quoted) consist in the removal of the sternal portion of the pectoralis major and the division of the pectoralis minor with reflection of that muscle. This is described as necessary for the complete removal of the glands in the axilla. I desire entirely to dissent from this view. I do not believe it necessary; still less that the entire pectoralis major need be removed, as is now Dr. Halsted's present contention. If the arm be properly manipulated and the great pectoral well dragged upwards and inwards the very topmost point of the axilla can be cleaned out. Moreover, if there is any doubt at all, the great pectoral muscle can be cut across with very little trouble and then stitched together with catgut sutures, as I have every now and then done. In the Transactions of the American Surgical Association Dr. Halsted relates that he almost invariably cleans out the supra-clavicular region and that our rule ought to be, "Operate on the neck in every case." For this purpose, however, he does not divide the clavicle as he did five or six years ago, but, if it were very desirable to remove the supra-clavicular contents in one piece with the axillary contents and breast, one need not hesitate to excise, if necessary, even the entire clavicle. He considers the neck involvement is no more serious than the axillary and that the neck can be cleared out just as thoroughly as the axillary region. He believes that in the near future we shall remove the mediastinal contents at some of our primary operations.

With every wish to defer to the opinions of those from whom I differ I feel sure that they will permit me to state my views as plainly as many of them have stated theirs. Some little apology I may plead—viz, that I have removed the breast and cleared out the axilla over 250 times. It is a locality with which I am necessarily fairly familiar. Well, I have stated that I do not consider that carrying away the entire great pectoral muscle and dividing the small one are at all necessary for the satisfactory removal of the axillary contents. Moreover, I have given up attempting to get any good out of clearing out the supra-clavicular region. In former days when I thought I could remove any cancer I did a good many cases, but never one survived long. I do not say I will not do it again if an apparently suitable case occurs. I did it 12 months ago on a lady who had a small cancer situated about an inch below the clavicle which had directly affected the cervical glands, but it was a failure, as usual. Dr. Coley in the article "Cancer" in "Twentieth Century Practice of Medicine" says: "The only positive evidence Halsted's statistics afford us as to the value of this operation of cleaning out the supra-clavicular fossa rests upon two cases in which the operation was done secondarily and in which the patients remained well three and three and a half years after the operation. In view of what I have already said regarding the failure of a three-year limit as establishing a cure of the disease we cannot consider the question as settled with much stronger evidence." Natürlich! My notion is this, that when cancer has laid hold of the supra-clavicular glands it has got such a grip as to be past extirpation. It is like a burning house. When the fire is beginning even some buckets of water will put it out, when it has got to a certain pitch a whole fire brigade will not quench it. Moreover, an experienced fireman will tell you the minute he sees the fire whether he can put it out or not. Bennett May in his Ingleby Lectures for 1897 says that he thinks it very doubtful whether some of these modern extensive operative procedures confer any additional immunity from recurrence at all commensurate with their severity. It is clear that in both classes of operation the majority of fatal cases die from internal metastases without external recurrence, and against these no operation can protect. Dr. Matas of New Orleans at a meeting of the American Surgical Association in 1898 said, speaking of Halsted and Meyer's operations that he firmly believed that surgery had there nearly reached, if it had not already attained, its maximum expression of effectiveness, beyond which it is absolutely impossible to advance without great risk to life or with any further expectation of increasing the chances of permanent recovery. I entirely agree with Mr. Marmaduke Sheild when he says that the swing of the pendulum of surgical opinion is generally too extreme and has now turned from too slight to too extensive operating.

One word more in reference to removing the great pectoral muscle. Do cancerous recurrences take place in the substance of that muscle? Are they found in the interval between the great and small pectoral muscles? Taking the latter query first, I have never seen such an occurrence. Referring to the first I believe that when the great pectoral muscle is the site of recurrent growths they creep into it from the subcutaneous tissues and pectoral fascia. They do not primarily originate in the muscle. There is, therefore, no need for its removal on that ground. No man in this country has had more experience of the pathology of cancer than Mr. H. G. Plimmer from his connexion as pathologist to the Cancer Hospital. In a conversation with him the

other day he perfectly concurred in this view, and, moreover, stated that he had never known anybody live long after distinct invasion of the supra-clavicular glands.

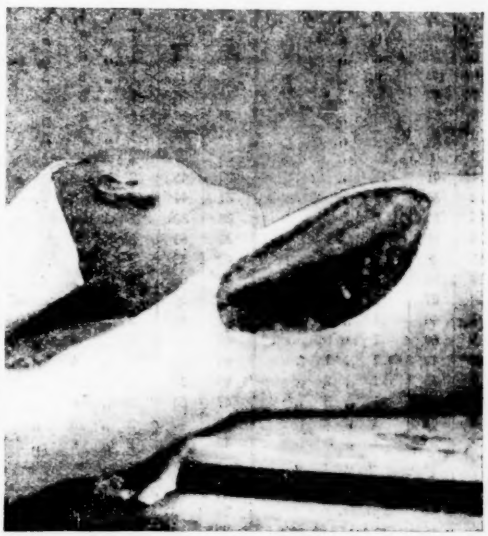
I think I need say very little concerning the operation of Berger which means removing the upper limb along with the scapula. It may be dismissed with the remark I once heard made by my friend Mr. Owen about another matter slightly altered from the French marshal's observation about Balaclava: "*C'est magnifique, mais ce n'est pas la chirurgie.*" Surely there are hypodermic syringes and morphia still in the land.

In the operations, the statistics of which I am about to present to you, my plan has been this. I never make angular, triangular, or multi-angular incisions, for they are a farce. I draw a circular "ring fence" with a knife outside the apparent limits of the mamma if the tumour is central, and if it is lateral the "ring fence" should bulge well beyond the tumour. I then slip the blade on the flat beneath the skin for about two inches and undercut it all round. This skin is then well pulled back at successive points by an assistant, and where the undercutting stops there the removal begins. So one gets a long way beyond the rough limits of the mamma proper. Then the tumour is removed and the fascia is dissected off the great pectoral muscle. The great advantage of the undercutting is that one can get the fascia off the muscle as far inwards as the sternum down to the ribs and up almost to the clavicle. As Mr. Butlin mentions, the removal of the fascia was one of the points dwelt upon by Dr. Gross and myself very many years ago. The axilla should then be opened by an incision just under the edge of the great pectoral and the upper end of the gland, and the whole contents of this cavity, as far as they can be held together, carried away in one mass. The importance of this lies in the fact that recurrence in the axilla takes place for the most part, not in glands that are left behind, but in fragments of lymphatic vessels. I feel convinced of that. A good plan is to get hold soon of the axillary vein and then there is nothing else to trouble about. One must take the matter very patiently, getting everything out of the cavity that can be got and cleaning up the digitations of the serratus magnus. On no account do I introduce the "sharpest possible knife" into the armpit or any knife at all. I use a dissecting tool, two very long strong pairs of dissecting forceps, and curved probe-pointed scissors. But everybody according to his taste except beginners, who ought not to use knives here. A drain hole should now be made just above the edge of the latissimus dorsi. Concerning the covering in of the great wound it is remarkable what can be done towards pulling it together by very strong wire and by the help of lead buttons. The very top of the axillary incision should be kept open. I put a little bit of gauze into this aperture and into the drain hole below. I wash my hands well with hot water and soap before operating. I pour hot water constantly over the wound during the operation and see that it is dry from blood at the end. I use no disinfectant fluids and I dress the wound with a piece of perchloride gauze and a pad of absorbent wool over it. I have used this plan of operating for over 20 years and have only altered it slightly in the following points. After reading my paper to the Harveian Society in 1887, so soon as I had recovered from my first discouragement I proceeded to remove more skin than ever, for I became more and more convinced that skin is the really dangerous tissue in this matter of cancer of the breast. Thiersch grafting was not then invented and so I had great difficulty in covering the big wounds. It was then that I began the practice of undercutting which I have demonstrated and taught ever since. If a wound of great size is left uncovered nowadays we have Thiersching to fall back upon. I have used it both at the time of operation and afterwards when granulation was going on, and I prefer the latter plan.

The accompanying reproduction of a photograph shows the result of the operation just described. The patient was a small woman, the carcinoma was of about the size of a walnut, and the affected glands were few in number and not big. It was, therefore, a proceeding of quite moderate dimensions. Just as I finished a sudden thought struck me to have it photographed. My house surgeon, Dr. Arkle, ran to his room for his camera and took a rapid picture. If it is not very successful the flurry of doing it in so much haste must account for that; nevertheless, it will give an idea of what I regard as the "complete" operation in opposition to the "redundant" variety. (See Fig. 7.) This lady was up and walking about on the twelfth day with the wound entirely healed, without a drop of suppuration, and without a degree of rise in temperature.

A view is being now taught that there is great danger of infecting the wound with the knife that has made the exploratory incision through the tumour. I have seen no evidence whatever to this effect and the extreme difficulty of getting the strongest cancer juice to reproduce anything in any cultivation medium is not in favour of it. Besides, let the operator wash his knife if he is afraid of this accident.

FIG. 7.



The illustration shows the "complete" as opposed to the "redundant" operation.

Before leaving this subject I wish to make a few remarks and I find great difficulty in making them, so much do I fear lest what I may say should be regarded in any way as derogatory to the talents of two gentlemen for whom I have a very great admiration—Dr. Heidenhain and Mr. Stiles. In 1887 Mr. Butlin said with reference to mammary operations: "It was only during the writing of this book that I became impressed with the necessity for reconsideration of the subject." In 1898, in consequence of having read Dr. Halsted's paper, the results "appeared to me to justify a thorough reconsideration of the surgery of cancer of the breast." In this he was fortified by the work of Heidenhain and Stiles. Now the researches of these gentlemen on the minute lymphatics of the breast and neighbouring tissues and the way cancer creeps into them are of the greatest interest from an anatomical point of view. But I do not see that they have done anything very specially to influence the views of men who are occupied practically in endeavouring to eradicate mammary cancer. Dr. Coley says: "Still later in 1889 Heidenhain by his very careful and scientific investigations as to the manner in which cancer cells extended from the original focus of the disease into the neighbouring parts demonstrated the facts, many of which Moore and Gross had already from clinical observations previously assumed as true. The gist of Heidenhain's results may be summed up in a few words. A cancerous tumour that has become sufficiently large to be recognised clinically has already scattered its infective cells throughout the entire breast, the neighbouring chain of glands and in many cases the fascia overlying the pectoral muscle." Quite so; but there was no surgeon in 1889 who did not know this as a matter of fact, although the matter had not been demonstrated by the microscope. It was not that surgeons did not know this, it was that they were not bold enough to act on their knowledge. In justice to myself and to the memory of my late friend Gross I think it rather hard that a certain group of surgeons should date the origin of the modern operative treatment of cancer from the microscopic investigations of Heidenhain and Stiles and the labours of Halsted and themselves.

TABLE OF STATISTICS.

Cases in which the Disease proved Fatal by Local Recurrence.

SE 1.—*(a) Cases which lived between One and Three Years.*

No.	Age.	Duration of life.	No.	Age.	Duration of life.
1	?	5 months.	26	40	1 year 4 months.
2	50	6 ,,	27	45	1 ,, 6 ,,
3	50	6 ,,	28	40	1 ,, 4 ,,
4	61	6 ,,	29	48	1 ,, 6 ,,
5	50	8 ,,	30	52	1 ,, 6 ,,
6	46	9 ,,	31	?	1 ,, 8 ,,
7	47	9 ,,	32	46	1 ,, 8 ,,
8	54	10 ,,	33	46	1 ,, 8 ,,
9	35	10 ,,	34	44	1 ,, 9 ,,
10	?	10 ,,	35	56	2 years.
11	41	11 ,,	36	45	2 ,,
12	33	1 year.	37	44	2 ,,
13	39	1 ,,	38	39	2 ,,
14	41	1 ,,	39	53	2 ,,
15	?	1 ,,	40	52	2 ,,
16	53	1 ,,	41	56	2 ,,
17	67	1 ,,	42	36	2 years 2 months.
18	46	1 ,,	43	42	2 ,, 1 ,,
19	60	1 year 1 month.	44	54	2 ,, 3 ,,
20	41	1 ,, 1 ,,	45	49	2 ,, 4 ,,
21	35	1 ,, 2 ,,	46	33	2 ,, 6 ,,
22	45	1 ,, 3 ,,	47	54	2 ,, 6 ,,
23	55	1 ,, 2 ,,	48	40	2 ,, 6 ,,
24	55	1 ,, 2 ,,	49	50	2 ,, 6 ,,
25	42	1 ,, 4 ,,			

(b) Cases which lived between Three and 14 Years.

50	40	3 years.	59	46	4 years 2 months.
51	52	3 years 2 months.	60	57	4 ,, 5 ,,
52	43	3 ,, 3 ,,	61	50	4 ,, 6 ,,
53	43	3 ,, 5 ,,	62	48	5 years.
54	50	3 ,, 6 ,,	63	34	5 years 7 months.
55	48	3 ,, 3 ,,	64	67	5 ,, 7 ,,
56	?	4 years.	65	36	7 ,, 3 ,,
57	43	4 ,,	66	50	12 years.
58	47	4 ,,	67	40	14 ,,

SERIES 2.—*Cases alive and remaining free from Disease.*

(a) From One to Three Years.

No.	Age.	Duration of life.	No.	Age.	Duration of life.
1	40	1 year 5 months.	6	56	2 years.
2	49	1 ,, 6 ,,	7	58	2 years 4 months.
3	39	1 ,, 8 ,,	8	57	2 ,, 5 ,,
4	(?)	1 ,, 10 ,,	9	53	2 ,, 5 ,,
5	54	1 ,, 10 ,,	10	56	2 ,, 6 ,,

(b) From Three to 21 Years.

11	56	3 years.	30	50	7 years 2 months.
12	45	3 ,,	31	55	7 ,, 6 ,,
13	24	3 ,,	32	51	8 years.
14	46	3 ,,	33	(?)	8 ,,
15	45	3 years 1 month.	34	63	8 years 2 months.
16	42	3 ,, 3 ,,	35	64	8 ,, 5 ,,
17	38	3 ,, 6 ,,	36	39	8 ,, 6 ,,
18	34	3 ,, 6 ,,	37	69	10 years.
19	50	4 ,, 4 ,,	38	62	10 ,,
20	50	4 ,, 10 ,,	39	40	10 years 3 months.
21	62	4 ,, 3 ,,	40	55	11 years.
22	54	5 years.	41	41	12 years 7 months.
23	31	5 years 5 months.	42	46	14 years.
24	50	5 ,, 6 ,,	43	52	14 years 3 months.
25	52	6 years.	44	53	14 ,, 6 ,,
26	45	6 years 4 months.	45	50	14 ,, 10 ,,
27	63	5 ,, 3 ,,	46	44	16 ,, 2 ,,
28	47	7 years.	47	42	17 ,, 10 ,,
29	43	7 ,,	48	49	21 years.

SERIES 3.—*Cases where the Patient Died without Local or General Return as far as Known.*

No.	Age.	Duration of life.	Cause of death.
1	43	2 months.	Died in asylum—mania (?).
2	56	1 year 4 months.	Acute pleurisy.
3	37	1 year.	Heart disease.
4	36	1 ,,	Childbirth.
5	43	1 ,,	Acute meningitis.
6	41	1 year 6 months.	Some nerve disease.
7	49	1 ,, 8 ,,	Acute pneumonia.
8	45	1 ,, 10 ,,	Sudden coma and collapse.
9	62	1 ,, 9 ,,	?
10	32	2 years.	?
11	46	2 years 6 months.	Bronchitis and heart disease.
12	57	2 ,, 11 ,,	Pneumonia.
13	?	2 ,, 6 ,,	Acute tuberculous phthisis (doctor's rep.).
14	56	2 ,, 8 ,,	Liver cirrhosis.
15	43	2 ,, 7 ,,	Phthisis and hæmoptysis.
16	54	3 years.	?
17	38	3 years 8 months.	Diabetes.
18	50	3 ,, 9 ,,	Acute bronchitis.
19	?	3 ,, 8 ,,	Do.
20	42	4 years.	Some cerebral disease.
21	63	4 ,,	Renal and general debility.
22	61	5 years 6 months.	"No secondary cancer" (doctor's rep.).
23	55	5 ,, 6 ,,	M ?
24	43	6 years.	Pneumonia.
25	?	8 ,,	Apoplexy.
26	49	8 years 2 months.	?
27	56	9 years.	Heart disease.
28	48	9 years 3 months.	Apoplexy.
29	50	16 years.	Influenza.
30	58	16 ,,	"Weak heart" at 71 years.

SERIES 4.—*Cases with no Local but General Recurrence.*

No.	Age.	Duration of life.	Sites and causes of internal recurrence.
1	49	3 months.	Liver.
2	26	8 ,,	Lung.
3	42	1 year	Cancerous pleurisy.
4	50	1 year 2 months.	Pelvic organs.
5	42	1 ,, 2 ,,	Humerus.
6	40	1 ,, 4 ,,	Liver.
7	53	1 ,, 6 ,,	Lung.
8	42	2 years.	Stomach—probably cancer.
9	61	2 years 1 month.	Spinal column.
10	35	2 ,, 6 months.	Lung.
11	40	3 years.	Lung—probably cancer.
12	49	3 ,,	Stomach.
13	51	3 years 1 month.	Rectum.
14	(?)	3 ,, 10 months.	Uterus.
15	56	3 ,, 10 ,,	Lung.
16	(?)	4 years.	Uterus and rectum.
17	40	4 ,,	Lung—probably cancer.
18	(?)	4 ,,	Lung.
19	33	4 ,,	Rectum.
20	62	4 years 10 months.	Cæcum.
21	52	5 years.	Rectum.
22	52	5 ,,	Œsophageal disease (?).
23	(?)	5 years 6 months.	"Relapse."
24	48	5 ,, 2 ,,	Lung.
25	67	7 years.	Lung.
26	49	7 years 2 months.	Stomach and Pleura.
27	(?)	7 ,, 4 ,,	Liver and rectum.
28	46	10 ,, 8 ,,	Ovary.
29	58	10 ,, 6 ,,	Liver.
30	38	14 years.	Stomach—probably cancer.

Fig. 1.

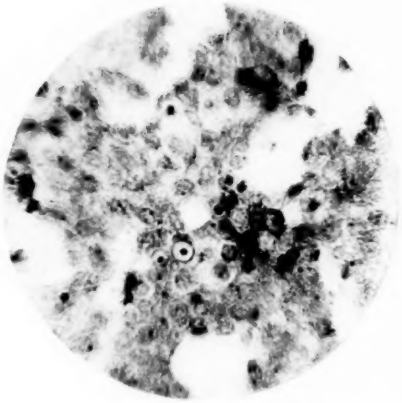


Fig. 2.

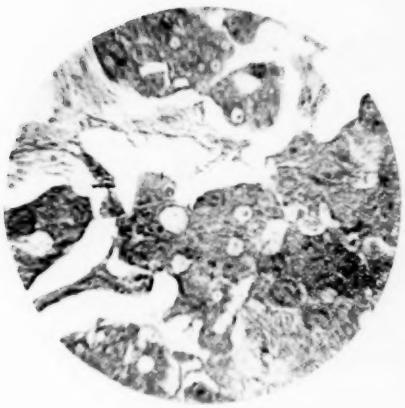


Fig. 3.

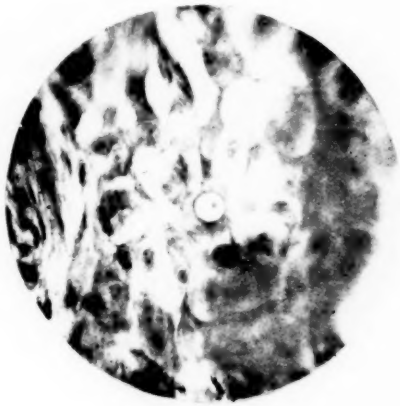


Fig. 4.

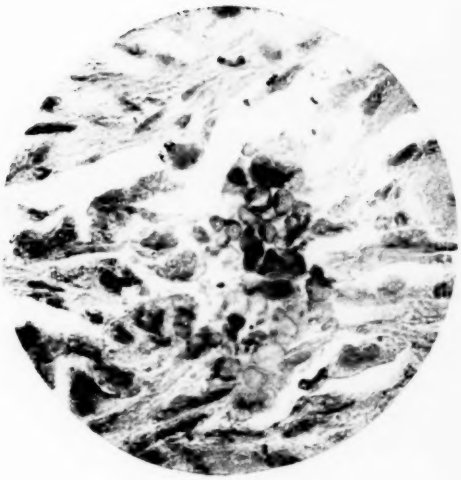
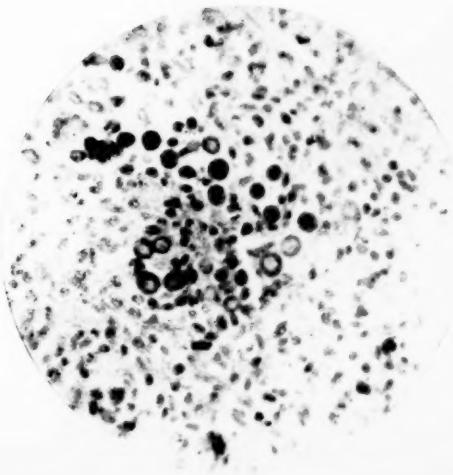


Fig. 5.

Fig. 6.



TO ILLUSTRATE THE LETTSOMIAN LECTURES ON CANCER OF THE BREAST, BY SIR WILLIAM BANKS.

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SERIES 5.—*Imperfect Cases in which it was found impossible to remove the whole Disease at the time of Operation.*

No.	Age.	Duration of life.	No.	Age.	Duration of life.
1	52	6 months.	5	51	1 year 6 months.
2	36	7 „	6	49	4 months.
3	51	7 „	7	63	2 years.
4	42	1 year 1 month.	—	—	—

SERIES 6. *Cases done under one year and about which nothing can as yet be said.*—16 cases have been operated upon during the past twelve months successfully.

SERIES 7. *Cases which recovered from operation but cannot be traced.*—These numbered 15, of whom one was alive after two years 10 months, another after two years six months, and a third after eight months.

SERIES 8.—*Cases Operated upon during 1896, 1897, 1898, 1899, and Three Months of 1900.*

No.	—	No.	—	No.	—
	1896.		1897.		1899.
1	March.	21	January.	42	December.
2	January.	22	February.	43	April.
3	November.	23	November.	44	March.
4	October.	24	September.	45	October.
5	November.	25	November.	46	March.
6	August.	26	January.	47	January.
7	April.	27	May.	48	October.
8	February.	28	March.	49	January.
9	October.	29	June.	50	November.
10	August.	30	November.	51	August.
11	October.		1898.	52	April.
12	December.	31	June.	53	April.
13	March.	32	November.	54	June.
14	December.	33	November.	55	July.
	1897.	34	June.	56	June.
		35	June.	57	April.
15	April.	36	March.		1900.
16	December.	37	April.		
17	March.	38	September.	58	March.
18	April.	39	October.	59	March.
19	May.	40	December.	60	January.
20	October.	41	March.		

Among these 60 cases there was no fatal one.

The above table of statistics speaks for itself. I am sorry that during the removal from our old Liverpool Infirmary to the present one the histories of many cases were lost. But what I have laid before you have been collected with as much care and accuracy as I could give to the matter. Mistakes there may be, but I am certain that they cannot be sufficiently numerous to invalidate in any way any general conclusions that may be drawn from the table. The cases number 213, of which 175 are available for statistical comparison. In Series 1 it is noteworthy that of the 67 persons who died from local recurrence 17 lived for periods between three and 13 years. Series 2 shows 38 persons alive and well between three and 21 years after operation. To Series 3 it may be objected that I cannot prove that some of the patients did not die from internal recurrence. It is a fair argument and all I can reply is that I have taken all the pains I could to make sure of the causes of death and have put any doubtful ones into Series 4. But, after all, if a cancer of the breast seems a fit subject for removal we do not speculate on internal recurrence, for our business as surgeons is to find out whether we can eradicate the disease locally so that we may be able to give patients who apply early for relief a good prospect of future immunity. Now, the first four series comprise 175 patients and of these 108 have remained free from local recurrence. Of the 108 there have lived 73 over three years as follows: cases that lived between three and six years after operation, 40; cases that lived between seven and 14 years after operation, 28; and cases that lived between 16 and 21 years after operation, 5. Take from these 73 cases half a dozen in case of errors, and still it follows that for every one of my 67 failures I can pit against it a case where the patient remained free from three to 21 years. With regard to tables of statistics in general the plan of taking percentages of small numbers of cases ought to be abolished. The figures in a surgical article nowadays make it look like an extract from an accountant's report on a bankruptcy case. As for the Three Years' Cure System it, too, must be abolished if people are to be instructed fairly. Let no woman be reckoned cured of cancer of the breast till she is dead.

And now, gentlemen, I have only to thank you for the patient courtesy with which you have listened to my poor attempts in a line of surgery to which I have devoted the best efforts of my life during the past quarter of a century.

EXPLANATION OF THE ILLUSTRATIONS.—PARASITES IN MAMMARY CARCINOMA.

FIG. 1.—Parasites in a mammary carcinoma; two in centre well defined. × 375. Reichert $\frac{1}{12}$ oil immersion. Dr. R. J. M. Buchanan.

FIG. 2.—Parasites in an axillary gland secondary to mammary carcinoma. × 375. Reichert $\frac{1}{12}$ oil immersion. Dr. R. J. M. Buchanan.

FIG. 3.—A single well-defined parasite from infiltrated skin over a mammary carcinoma. × 375. Reichert $\frac{1}{12}$ oil immersion. Dr. R. J. M. Buchanan.

FIG. 4.—Group of parasites in a mammary carcinoma. × 250. Mr. Keith W. Monsarrat.

FIG. 5.—Coverslip preparation of parasites cultivated on artificial media from a mammary carcinoma. × 75. Low power. Mr. Keith W. Monsarrat.

FIG. 6.—Lung of guinea-pig showing parasites the result of the inoculation of cultivation, Fig. 5. × 350. Mr. Keith W. Monsarrat.

The specimens were prepared by Dr. R. J. M. Buchanan and Mr. K. W. Monsarrat.

REMARKS ON THE PHYSICAL SIGNS OF PULMONARY DISEASE.[1]

BY P. H. PYE-SMITH, M.D. LOND., F.R.S.,
CONSULTING PHYSICIAN TO GUY'S HOSPITAL.

THE great step made by Laennec in scientific medicine was not the invention of an instrument, like the ophthalmoscope or the laryngoscope, for we can do without the stethoscope in auscultation; and Auenbrugger's discovery of percussion, made 50 years before, had been almost forgotten until Corvisart translated it in 1808. Mediate auscultation was the great discovery it was because Laennec was a morbid anatomist as well as a clinical physician and was thus able to compare intelligently his observations at the bedside with the anatomical facts of the dead-house. The same is true of Bright and albuminous nephritis and of the application of electricity to diagnosis by Duchenne and Erb. If diagnosis is to advance it must still go hand-in-hand with post-mortem inspections.

In forming a diagnosis we depend partly on symptoms and partly on physical signs. The distinction is neither logical nor important. We call dropsy a symptom of heart disease, but why not a sign? and why is ascites a physical sign rather than a symptom of cirrhosis of the liver? The real distinction would seem to be rather between symptoms which are subjective conditions of the patient's consciousness, such as pain of all kinds and degree, pruritus, inability to move, nausea, dyspnœa, amaurosis, diplopia, anorexia, and symptoms which are objective, recognised by the physician independently of the patient's consciousness, such as pallor, cyanosis, convulsions, mydriasis, albuminuria, and hæmoptysis. The former set can be simulated, the latter cannot.

Among objective symptoms the so-called physical signs form a separate group. The most important thing to notice of this group is that physical signs tell us only of physical conditions. The Argyll-Robertson pupil, the absence of a knee-jerk, the presence of Jacksonian convulsions, icterus, or pyrexia are all objective symptoms; but they are physiological conditions and point to physiological causes; whereas dulness of the chest on percussion means solid lung, fluctuation of the abdomen means water in the peritoneum, a cardiac murmur infers the presence of a fluid vein, and a râle or rattle the formation of bubbles. Unlike other objective symptoms physical signs tell us nothing of

[1] Part of this paper was read before the Medical Society of Torquay in October, 1899, and part before the South London Branch of the British Medical Association in February, 1900.

the physiology of disease, the perversion of functions; they do not even tell us the nature of the solidification of a pulmonary lobe or that of the liquid which causes bubbles in a bronchus. The former may be due to hepatisation, compression by pleural effusion, or infiltration by cancer; the latter to the mixture of moving air with mucus or blood or pus, or beef-tea. Physical signs point only to physical conditions, not to pathological processes—hence it is undesirable to speak of "pneumonic" crepitation, of "bronchitic" râles, or "cavernous" breathing. This may be thought hypercritical, but I feel sure that I am right in deprecating the loose descriptive way of reporting the physical sounds of the chest by which each writer makes some new comparison or coins some new term. Nothing is more repellent to students and nothing makes reports of cases of pulmonary disease so tedious to read and so difficult to understand.

The essentials of auscultation of the lungs are, I venture to think, neither very numerous nor very difficult, and they admit of being stated in precise, definite, and recognised language. For instance, the difference between dulness and resonance is easy for even an untrained ear to appreciate, though the slight degrees of dulness need attention and experience to recognise. But a "boxy" note, "skodaic" resonance, "tympanitic dulness," a "flat" or "empty" (*leer* as Skoda called it) percussion sound—these terms are either indefinable or contradictory or tautological. A resonant sound is louder by amplitude of vibrations, longer by duration of vibrations, lower pitched by frequency of vibrations, and it possesses more tone—i.e., a greater proportion of regular overtones. A dull note is much less sonorous, much shorter in duration, higher in pitch, and above all is a mere toneless noise without any musical quality. Between the absolute dulness on percussion of a chest full of fluid or of the muscles of the thigh and the resonance of healthy lung there is doubtless every gradation; as, again, there is between healthy pulmonary resonance and the over-resonant note given out by the larynx on percussion, the "amphoric" note of pneumothorax, and the drum-like note of tympanites. But the whole difference is of degree, and there is no special "quality" of tone or *timbre*, as Piorry imagined, peculiar to the liver, the spleen, the muscles, the heart, or the solidified lung. One only of his delusive distinctions must, I think, be admitted—the kind of resonance which is produced on percussing a subcutaneous osteal surface, a solid but very elastic tissue. When three of the four characters of dulness above given are present, shortness, weakness, and high pitch, combined with one element of resonance—namely, the presence of "tone"—there results the so-called "tympanitic dulness" which may be easily imitated by tightening up a drumhead. The sound is then high-pitched, faint, and short, but it still has the musical quality due to regular overtones, and we instinctively infer that air is present in a tight cavity.

The practice of auscultation of the breathing has suffered even more than has that of percussion from needless refinements, inaccurate language, and vaguely descriptive or fancifully metaphoric terms. The healthy pulmonary murmur (wrongly called "vesicular," for whatever its mechanism its seat is certainly not in the alveoli) is, I am convinced, liable to considerable variation in healthy persons. It is loud when the chest is thin and faint when the walls are well clothed with fat and muscle. It is loud in children, and this "puerile" character is often mistaken for a morbid sign. Much of what is called "harsh" breathing is nothing but loud breathing, for a mere noise like the pulmonary murmur of health is apt to become harsh—i.e., unpleasant to the ear—when its loudness is much increased; and I would fain exclude the former epithet altogether. The distinction between a pulmonary breath-sound, however loud or harsh or "coarse" (another undesirable adjective) it may be, and bronchial, tubular, or tracheal breathing is one apparently difficult to catch. At least, most learners call puerile, exaggerated, or supplementary breathing "bronchial" and true bronchial breathing "amphoric."

I do not deny that there are gradations between vesicular and tubular which may if we please be recognised as "broncho-vesicular," "obscured," "veiled," or "transitional," but I am sure that they are rarely met with and that the less often such ambiguous terms are employed the better. Bronchial or tubular breath-sounds are almost always marked by prolonged expiration, but their distinctive character is what is called "blowing" or "puffing" or "whiffing"—i.e., the inspiratory and expiratory murmurs are more continuous, more equal in character as well as in duration, and have more tone than have those of vesicular breathing. Though often loud, tubular breath-sounds are often very weak. In fact, the loudness of the sounds heard over the larynx or trachea makes them somewhat misleading as an example of tubular breathing. In teaching this part of the subject I have always regarded the healthy "vesicular murmur" as the laryngeal murmur due to a fluid vein in the glottis modified by spongy lung, and not tubular respiration as the sound in the bronchial tubes transmitted by solid lung; and the same theory applies to bronchophony and vocal resonance, and also to tactile fremitus.

The adventitious pulmonary sounds were all described by Laennec as *râles* (in English, rattles) and the term is still used in this comprehensive sense by, I believe, all French, most German, and some American writers. But in England we have for half a century been accustomed to confine the word "râles" to "moist sounds" like the *râle muqueux*, and to use the term "rhonchus" for all "dry sounds," including the *râle sonore* or *rhonchus* of Laennec and his *râle sibilant*. "Moist" and "dry" are not happy descriptions of the râle and the rhonchus, for the mucous membrane of the trachea and bronchi are never dry, and it seems absurd to associate "dry" sounds with free expectoration. "Râle" and "rhonchus" as we use them are arbitrarily assigned, and the original meaning of the latter—"a snore"—would exclude sibilant rhonchus. Still the difference between the two kinds of adventitious breath-sounds is important and admits of exact definition, both as an auditory perception and as a physical phenomenon. Râles or moist sounds are interrupted, rhonchi or dry sounds are continuous; râles are caused by successive explosions of bubbles, rhonchi by a fluid vein. The loudness and the low pitch of a râle or a rhonchus are indicative of the larger size of tube, the trachea, or larger bronchi; faintness and shriller pitch lead one to refer them to the smaller bronchi. Moreover, in the case of râles a very few explosions give the impression of large bubbles in a large tube like the trachea, while a great number of them suggest to the listening ear small bubbles in a small bronchus. A much more important character and one which has been misapprehended by many writers is that between consonating and non-consonating râles. The former have a musical quality or at least some degree of tone, the latter are mere noises. The distinction is that felt by Laennec when he distinguished *râles crépitants* from *râles à grosses bulles*. The late Dr. George Barlow called the former "crackles" and the latter "rattles." Most writers speak of the former as "bright," "clear," "musical," or "metallic" râles, and the latter as "bubbling" râles. But all râles are bubbling, and the word "crepitant" does not in itself denote anything more definite than Laennec's comparison with the sound made by burning salt. No one who has auscultated with care can overlook the difference referred to, but it does not seem to be generally recognised that the difference between a "clear" or crackling râle and a bubbling râle is really that between more or less musical sounds with regular overtones, and mere noises without "tone." Moreover, the distinction is of great practical importance, which has not, I think, been clearly recognised by most writers on auscultation. The first kind, "non-consonating" or toneless râles, always imply a spongy condition of the lung, whereas râles with tone (consonating or crepitant) always point to solidification of the lung; the only exception being when they are rendered musical by the bubbles bursting in a large cavity filled with air, as in cases of a very large vomica or of pneumothorax. The peculiar and characteristic distinctions of true pneumonic crepitation are the large number—i.e., small size—of the detonations which compose it, and their eminently consonating and therefore wonderfully clear and distinct character.

Is a râle a sign of pulmonary œdema? I think not. Œdema of the lung is effusion of serum into the interstitial tissue between the air-passages. Œdematous lung does not sink in water and therefore it still contains air, and it does not cause dulness during life. The râles sometimes heard in cases of œdema from Bright's disease are, I believe, due to inflammatory effusion of mucus into the bronchioles. They are small but toneless. When I have heard consonating râles during life I have found lobular pneumonia after death.

What is the nature of so-called capillary bronchitis in the aged? The term "capillary" dates from a period when the anatomy of the lung was not understood, for there are no

capillary bronchioles or air-passages; but is there a form of bronchitis which spreads as far as the pulmonary lobules and no farther? I doubt it, and if I am right in the doubt does it not follow that capillary bronchitis of the aged is anatomically identical with lobular or catarrhal pneumonia (pulmonary catarrh) of children? The opportunities of seeing the lungs in the former case are much fewer than in the latter, but where I have had an opportunity I have seen some of the lobules hepatised in cases of suffocative bronchitis in old people. It is exceedingly rare for death to occur from bronchitis in early and middle adult life—twice only have I met with it. May we not say that (with similar rare exceptions) fatal acute bronchitis in children is lobular pneumonia with more or less collapse; that in aged patients also it is lobular pneumonia; and that in the periods between it is a secondary complication of acute miliary tuberculosis, of lobar pneumonia, or of phthisis? In cases of life assurance I have scarcely ever known a death reported as due to bronchitis between puberty and 60 years of age which did not on inquiry turn out to be phthisis or pneumonia, often disguised under the meaningless term of "congestion of the lungs."

With regard to the physical signs of phthisis, are we not too apt to look for the striking and interesting sounds which belong to its later stages, such as absolute subclavicular dulness, amphoric breathing, consonating râles, and the percussion note of the cracked pot? In early cases of the disease, when we are most concerned to detect and to treat it, do we often find decided dulness? I think not, and if we check our auscultation by our knowledge of anatomy we cannot expect it; for at this early period the tubercles and pneumonic patches affect only separate lobules or alveoli or inter-alveolar passages, and such an affected area (only observed after death when there are more advanced changes in other parts) does not sink in water. Moreover, even in chronic cases we often find so much vesicular emphysema at the necropsy that it is no wonder that small patches of consolidation fail to deaden the percussion note. For resonance spreads, but dulness does not. From observation on the lobular pneumonia (pulmonary catarrh) of children I am convinced that isolated lobules in a hepatised state do not appreciably affect the percussion note of the chest; it is only when three or four contiguous lobules are solidified that we recognise the dulness which they produce. Even in the later stages of phthisis I am convinced from post-mortem experience that the subclavicular dulness is often due to pleuritic thickening and adhesions—no doubt tuberculous in origin—and not to extensive consolidation of the apex. This would explain why we not infrequently find a flattening under the clavicle with deficient resonance, and yet the breath-sounds are not bronchial in character nor is the vocal resonance altered. Another cause of complete dulness at one apex is the presence of a large cavity. This never, I believe, gives a resonant note. Such large cavities are always surrounded by a dense thick capsule of fibrous tissue and are adherent to the chest wall. They can only form slowly and therefore they belong to the most chronic cases—i.e., to the most resistant and the most hopeful; whereas when there are very slight dulness and no other striking signs, only non-consonating râles and prolonged expiration, if there are fever, wasting, and diarrhœa, we have to deal with a rapid and almost hopeless form of the disease.

Brook-street, W.

THE

SURGICAL TREATMENT OF DILATATION OF THE STOMACH.[1]

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THE following are the principal causes of dilatation of the stomach: (1) cicatricial contraction of the pylorus, due usually to old gastric ulcer; (2) malignant disease of the pylorus; (3) adhesions outside the pylorus; (4) gastroptosis; (5) spasm of the pylorus from ulcer or from excess of free hydrochloric acid; (6) atony (?); (7) various neuroses; and (8) floating kidney on the right side. It is only to the first three of these causes that I can refer in this paper.

With regard to diagnosis, the following are the principal methods of examining the stomach: (1) inspection; (2) palpation; (3) percussion; (4) auscultation; (5) intubation; (6) artificial distension of the stomach with gas; and (7) the chemical examination of the stomach contents. It would take too long to refer to these methods in detail, but I would point out that on inspection of a case of pyloric stenosis one often sees, not only a rounded tumour caused by the dilated stomach, but waves of peristalsis passing across the abdomen from left to right. The methods of palpation and percussion are so well known that nothing need be said on them. I might, however, mention that by auscultation we may hear splashing sounds within the stomach and bubbling of gas in the region of the pylorus. Intubation is a most valuable method, and its use should never be omitted in the examination of a case of dilated stomach, except where active ulceration is strongly suspected. A soft rubber tube is swallowed by the patient with practically no discomfort, the stomach contents can then be evacuated by expression of the stomach or by the attachment of a syphon tube. It is usual, half an hour before using the tube, to give Ewald's test breakfast, which consists of a plain roll and half a pint of warm water or weak tea; the fluid obtained after extraction is available for the application of chemical tests. To cause artificial distension of the stomach the two constituent parts of a seidlitz powder may be given separately in a little water. The carbonic acid gas thus generated causes dilatation of the stomach and enables one to define its limits with precision. This method, however, causes considerable discomfort to the patient, since carbonic acid gas produces spasm of the pylorus; less discomfort is experienced if the stomach be distended by air pumped into the stomach by means of the stomach tube. The chemical examination of the stomach contents is undertaken to determine whether there is an excess or absence of free hydrochloric acid and of lactic acid or acid lactates. The simplest test for hydrochloric acid is a solution of phloroglucin and vanillin in absolute alcohol. A few drops of this are placed in a china plate and a drop of the stomach filtrate is placed close to it, so that the edges of the two drops coalesce. The plate is then warmed, and if any free hydrochloric acid is present a red tinge appears; the amount can be estimated by making a control test with a 1 per cent. solution of the acid. The easiest test for lactic acid or acid lactates is to place a few drops of neutral ferric chloride solution in three drachms of 1 in 20 carbolic acid, and then add water until an amethyst-blue colour results; a few drops of the stomach filtrate added to this will produce a yellow colouration if lactic acid or acid lactates be present.

These tests are of importance in distinguishing between the various forms of dilated stomach; thus in malignant disease we usually get an excess of lactic acid and an entire absence of hydrochloric, and in gastric ulcer or cicatricial contraction due to this we find an excess of free hydrochloric acid, and in dilatation due to gastroptosis or to neuroses we find the amount of free hydrochloric acid fairly normal. The foregoing, however, is not absolutely correct, and I have obtained false information in two of my series of cases. In No. 13, which was advanced malignant disease, an excess of free hydrochloric acid was demonstrated, and in No. 12 there was an entire absence of free hydrochloric acid, although the dilatation was due to cicatricial contraction. The presence or absence of a tumour is not of much value in the diagnosis of a case, although in some cases one can be felt in the region of the pylorus; and when the stomach has been much dilated this tumour may be freely moveable and may be found even as low as the iliac fossa. As a general rule, however, in malignant disease, if a tumour can be felt, the case will prove to be too far advanced for radical treatment, and its absence is certainly no evidence against the existence of this disease; on the other hand, a distinct nodule can sometimes be felt in cicatricial stenosis, and a small moveable tumour was felt before operation in No. 10 and No. 11. Another well-recognised symptom of malignant disease—viz., coffee-ground vomit—is often not present till late in the case, and so its absence is of no clinical importance.

Briefly, then, the symptoms of malignant disease of the pylorus which would indicate surgical interference are: (1) pain, usually localised to the pyloric region and felt in

[1] A paper read before the West London Medico-Chirurgical Society on Jan. 5th, 1900.

OPERATIONS FOR DILATED STOMACH.

No.	Date.	Sex.	Age.	Place.	Disease.	Operation.	Result.	Remarks.
1	August 8th, 1893.	M.	69	Private.	Carcinoma of pylorus.	Gastro-enterostomy.	C.	—
2	Dec. 10th, 1894.	F.	31	West London Hospital.	"	"	D.	Death on the tenth day from broncho-pneumonia.
3	July 7th, 1880.	M.	56	"	"	"	C.	Pylorectomy later, vide No. 15.
4	July 26th, 1899.	M.	34	"	"	"	C.	Pylorectomy later, vide No. 16.
5	August 21st, 1899.	F.	63	Private.	"	Gastro-enterostomy for gastric fistula.	D.	Death on the seventh day from exhaustion.
6	Nov. 11th, 1899.	F.	50	Watford Cottage Hospital.	"	Gastro-enterostomy.	C.	—
7	Dec. 16th, 1899.	F.	56	West London Hospital.	"	"	D.	Death on the ninth day from peritonitis.
8	Jan. 3rd, 1897.	F.	39	"	Cicatricial stenosis of pylorus.	"	R.	Vide No. 12.
9	June 5th, 1897.	F.	40	"	Adhesions round pylorus after gastric ulcer.	Separation of adhesion.	C.	—
10	Feb. 7th, 1895.	M.	54	"	Cicatricial sten sis of pylorus.	Loreta s operation.	C.	—
11	May 19th, 1899.	F.	62	Private.	Cicatricial stenosis of pylorus.	Pyloroplasty.	C.	—
12	Nov. 15th, 1899.	F.	42	West London Hospital.	Cicatricial stenosis of pylorus.	"	C.	Same patient as No. 8.
13	June 28th, 1899.	F.	44	"	Carcinoma of pylorus.	"	D.	Death on the sixth day from exhaustion.
14	May 20th, 1899.	M.		"	"	Pylorectomy by Kocher's method.	D.	Death on the sixth day from kink of jejunum.
15	July 25th, 1899.	M.	56	"	"	Pylorectomy.	C.	Same patient as No. 3.
16	August 8th, 1899.	M.	34	"	"	"	C.	Same patient as No. 4.

16 cases—5 deaths { 11 malignant ... 5 deaths. Mortality = 45·4 per cent.
{ 5 non-malignant ... no death.

the back; (2) signs of dilatation of the stomach; (3) retching and vomiting, usually only after solids; (4) peristaltic waves seen over the stomach area; (5) absence of free hydrochloric acid from the fluid obtained on passage of the stomach-tube or from the vomited matter; (6) progressive emaciation; (7) obstinate constipation; and (8) progressive anæmia. The age of the patient has also to be considered, for as a rule dilatation in patients under 40 years of age is due to cicatricial contraction, since malignant disease is uncommon under that age. However, in two of my cases, No. 2 and No. 4, malignant disease was present at the ages of 31 and 34 years respectively.

The surgical procedures which are undertaken for the relief of dilated stomach vary with the cause. In malignant disease they are either pylorectomy or gastro-enterostomy; in non-malignant stenosis they are either pyloroplasty, gastro-enterostomy, Loreta's operation, pylorectomy, or division of adhesions. In gastroptosis and neurotic cases lavage and massage will usually suffice, but in obstinate or long-standing cases, where the dilatation does not yield to these means, the following operations may be undertaken. In gastroptosis the stomach may be stitched to the parietal peritoneum (gastropexy), and in simple dilatation the capacity of the stomach can be diminished by folding in and suturing a portion of the anterior wall of the organ (gastroplication). I think that I can best illustrate some of these methods of treatment by a brief review of the 16 operations on the stomach which I have performed and which are set out in tabular form. Eleven of these were for malignant disease and five of the patients died within a fortnight, the remainder living some months, and five were operations for cicatricial stenosis, all of which were successful. Of the malignant cases seven operations were gastro-enterostomies with three deaths, three were pylorectomies with one death, and one was a fatal pyloroplasty. The causes of death were as follows: one patient (gastro-enterostomy) died from broncho-pneumonia on the tenth day; the second patient died from exhaustion from a gastric fistula, for which the operation had been done; and in the third case the patient died on the ninth day, the necropsy showing that, although all the stitches held firmly and no place could be found from which extravasation had occurred, a collection of pus existed behind the stomach. In the case of pylorectomy life was lost by an accident, death occurring on the sixth day from kinking of the jejunum produced by the adhesion of a coil of gut to the surface of the stomach; both intestinal and stomach wounds were water-tight and no extravasation had taken place. In the case of pyloroplasty the patient died from exhaustion on the sixth day and although the stomach wall had been sutured close to the growth the stitches had held perfectly and there had not been any extravasation.

The mortality of these cases appears large, but I must point out that the whole series of cases, with the exception of two, were suffering from advanced malignant disease with evident tumour, and were worn out by long-standing and frequent vomiting. In such cases the peptic glands seem to lose their power of secretion, and the long absence of food from the intestinal tract appears to destroy the patient's power of assimilating nourishment when it is given after a gastro-enterostomy. Finally, I would mention that I have made no selection of cases and have quite disregarded the effect on my statistics in considering the question whether an operation gave any hope of relief or comfort to the patient.

Of the patients who recovered one died two months later, but the patients in the other cases are still alive. All the gastro-enterostomies were performed by Halsted's method for lateral anastomosis, by sutures alone without any apparatus, and in all but one the jejunum was attached to the posterior surface of the stomach so as to prevent regurgitation of bile and intestinal contents into the stomach. In the successful cases of pylorectomy a posterior gastro-enterostomy was performed a fortnight before the removal of the growth, the patient receiving plenty of nourishment by the mouth between the two operations. In the fatal case the operation was performed by Kocher's method and would have been successful but for the occurrence of a kink in the jejunum. I would like to refer in fuller detail to one of the successful cases of pylorectomy (No. 3 and No. 15 in the table).

A healthy-looking man was admitted into the West London Hospital, under the care of Dr. J. B. Ball, in July, 1899. He had been suffering for some months from indigestion and vomiting and on examination a dilated stomach was found. The vomiting became less frequent when the patient was kept in bed on a limited diet, but the dilatation of the stomach remained, the lower limit of the organ being two inches below the umbilicus; waves of peristaltic contraction also could be seen passing

over the swelling from left to right. The vomit was examined and was found to contain no free hydrochloric acid and excess of lactic acid. The stomach having been washed out previously to the operation the abdomen was opened in the middle line above the umbilicus and a small growth was found involving the pylorus, which, however, was freely moveable and no glands were affected. It was clearly a suitable case for pylorectomy, but as the risk of this operation is lessened when the operation is performed in two stages it was decided to do gastro-enterostomy only in the first instance; accordingly a hole was torn through the gastro-colic omentum and the posterior surface of the stomach exposed; a piece of jejunum was then picked up and turned round on its axis and held to the posterior surface of the stomach by an assistant; the two pieces of gut were then united by a row of quilt sutures passing through the peritoneal, muscular, and submucous coats. A lateral anastomosis was then effected, all the sutures being passed before the opening in the stomach and jejunum were made; this opening was about two and a half inches in length. The abdominal wound was closed in layers. The patient made an uneventful recovery, and took plenty of nourishment by the mouth. 18 days later the scar was re-opened and the pyloric tumour was brought out of the wound; an elastic ligature was placed round the duodenum and the stomach was compressed between the fingers of an assistant. The gastro-colic and gastro-hepatic omenta were then divided after the application of ligatures along the portion to be removed, and after the application of clamps on each side of the tumour, the whole mass was cut away with scissors. The cut end of the stomach was invaginated upon itself and secured by a continuous suture going through all the coats, and then with another suture going through the peritoneal and muscular coats only. The end of the duodenum was treated in a similar way. The patient had no discomfort after the second operation, and commenced feeding by the mouth on the following day; he made an uneventful recovery and left for a convalescent home a month later.

Turning now to the non-malignant cases we have a series of five operations on four cases.

The first case (No. 8 and No. 12 in the table) was that of a woman, aged 39 years, whose stomach was enormously distended and extended down to the iliac fossa; she was not emaciated, and gave a vague history of previous gastric ulcer. On opening the abdomen a small hard mass was found at the pylorus and enlarged glands were felt extending up to the hilus of the liver. Under the impression that the disease was malignant and incapable of removal, a posterior gastro-enterostomy was performed. This was done in January, 1897. The stomach regained its normal size and the patient becoming quite well and plump. A couple of years later the stomach again began to dilate and as it was evident that the anastomotic opening was contracting another operation was advised. On re-opening the abdomen the growth at the pylorus was found to be smaller and the enlarged glands could no longer be felt. As the obstruction was evidently cicatricial in origin it was decided to perform a pyloroplasty. This was done and the patient made a perfect recovery.

The next case (No. 10 in the table) was that of a man, aged 54 years, who had very severe pain in the pyloric region, together with some dilatation of the stomach. Peristaltic waves could be seen passing over the stomach and a small moveable tumour could be felt in the pyloric region on deep palpation. On opening the abdomen a small hard tumour was found involving the pylorus, but as the evidence was against malignancy an incision was made into the anterior surface of the stomach and the pylorus was dilated with the fingers according to Loreta's method. The patient has remained in good health ever since.

The next case (No. 11 in the table) is, I think, of sufficient interest to justify a more detailed account, and I will take this opportunity of describing the operation of pyloroplasty. A woman, aged 62 years, came under my care in May, 1899, with the following history. She had had good health till 15 years before, when she suddenly vomited a quantity of blood; she had no indigestion and had no further trouble for about 10 years. She then had several attacks of so-called influenza, which left her very weak. She had lost weight (about three stone) during the last 14 months, and had suffered from gastric pain, flatulence, vomiting, and constipation. She regained one stone under diet and treatment, but continued to vomit an enormous quantity about once a week; although she continued on a special diet and rested in bed, she had been vomiting about twice a week till 14 days before, since when she had been vomiting daily; she had lost seven pounds in weight during the past month. On examination the stomach was found to be dilated, its lower border extending a hand's breadth below the umbilicus; a very moveable tumour of the size of a hen's egg could be felt about midway between the umbilicus and the right anterior superior iliac spine. The vomit was tested and found to contain an excess of free hydrochloric acid. The patient was anæsthetised by Mr. Stormont Murray on May 19th, 1899, and I operated with the assistance of my colleague, Mr. G. L. Cheatle. The abdomen was opened in the middle line above the umbilicus, and an enormously dilated stomach was found. The small moveable tumour felt before the operation proved to be the pylorus, and although a small gland could be felt in the gastro-hepatic omentum, the tumour appeared to be cicatricial in nature, and the chemical examination of the stomach contents bore out this view. It was, therefore, decided to perform a pyloroplasty. An incision about two and a half inches long was made over the long axis of the tumour extending for one inch on each side into the stomach and duodenum beyond the stricture. The stomach was emptied by means of a large drainage-tube, and had to be emptied again before the close of the operation on account of the amount of mucus secreted. The pylorus was then completely divided with scissors in the line of the horizontal incision, and the extremity of the incision in the stomach was brought opposite to and united to the extremity of the incision in the duodenum, so as to convert the horizontal incision into a vertical one; the wound was sewn up first with a continuous suture, uniting all the coats, and then with two continuous quilt sutures involving the peritoneal, muscular, and submucous coats only. On completion of the operation the new pyloric opening admitted three fingers readily. The patient did not suffer from any shock and only vomited during the first 24 hours after the operation, during which time she had nothing but hot water by the mouth; on the following day she had half-ounce doses of barley-water or Valentine's meat-juice and water, together with nutrient enemata and suppositories. On May 21st the amount of nourishment was increased to two ounces at a time, and the nutrient enemata were discontinued; on the 22nd the nutriment was increased to five ounces and eggs and jelly were added; on the 23rd custard pudding was allowed and the nutrient suppositories were stopped. She was kept on slop diet till the 29th, when a sole was given, and a day later she had chicken. Her recovery was perfect, and I saw her three months ago, when she informed me that she was in perfect health.

The last case (No. 9 in the table) was that of a woman, aged 40 years, who had been admitted into the West London Hospital with a severe attack of hæmatemesis and pain. She was kept on a rigid diet and in bed, but at the end of a month she still complained of violent pain and there were signs of dilatation of the stomach. The abdomen was opened in the middle line above the umbilicus, and it was found that the omentum was adherent to the stomach in the region of the pylorus. The omentum was divided after ligature without disturbing the adhesions, with the result that the dilatation was relieved.

This series of cases, I think, shows that operations for non-malignant stenosis of the pylorus are very successful, the mortality in my cases being *nil*, and unless the case be left too late and the patient become exhausted, with frequent vomiting, &c., there is no reason why the operation should not be absolutely successful. As an illustration of the safety of gastro-enterostomy in non-malignant disease I would mention a series of 21 cases without a death reported by Doyen of Paris. The most desirable operation in non-malignant stricture is, I think, pyloroplasty, since the opening in gastro-enterostomy seems to have a great tendency to contract. The same remark applies to Loreta's operation. The mortality of pyloroplasty is uncertain—it is stated by Mickulicz to be 11 per cent., but I am inclined to think this too high in non-malignant cases.

In malignant cases there is absolutely no question that the fatal issue in nearly all the cases was due to the delay in seeking operative relief, and I am inclined to think that an operation undertaken in the early stages of malignant stricture will not be followed by a much higher mortality than a similar procedure in a cicatricial stenosis. The important point, then, is to make an early diagnosis. Unfortunately this

is a great difficulty, and so an exploratory operation is to be recommended in doubtful cases. With regard to the nature of the operation, in cases where no tumour can be felt by palpation and only a small one is found on opening the abdomen, pylorectomy should be performed, but I believe that the risk of this operation is greatly lessened by performing it in two stages—viz., first do a gastro-enterostomy, and then, when the patient has been fed by the mouth for about 14 days so as to build up the strength, the abdomen should be reopened and the pyloric growth removed in the manner already described. In cases of advanced malignant diseases, where a large tumour can be felt beforehand, and when on opening the abdomen adhesions and glands are found, a gastro-enterostomy will give considerable temporary relief; the pain and vomiting being lessened and the dilatation of the stomach subsiding. I might mention that I should not do pyloroplasty in another case of carcinoma as it is most important to have a perfectly healthy stomach for the insertion of the sutures.

Finally, I would point out that after all these operations on the stomach the patients were fed by the mouth on the day following the operation, and the amount of nourishment was gradually increased till about the twelfth day, when ordinary diet was given; no bad result was traceable to early feeding.

Wimpole-street, W.

A PARASITIC CRUSTACEAN AS A FOREIGN BODY ON THE CORNEA.

BY RAYNER D. BATTEN, M.D., B.S. LOND.,
SURGEON TO THE WESTERN OPHTHALMIC HOSPITAL.

THE patient, a fishmonger, came to me at the Western Ophthalmic Hospital, having had some irritation in his left eye, for which he had been under treatment for some days without improvement. He had been told that he had an ulcer on the cornea. He had no recollection of having got anything into his eye.

On examination I found a small oval vesicle about two millimetres in diameter situated at the upper margin of the cornea. The condition of the cornea, I may say, completely puzzled me. I was unable to make any diagnosis beyond "a growth on the cornea." I give the description of the appearance as I noted it at the time, although it is obviously wrong in some points: "At the upper margin of the cornea there is a small clear vesicle; its central portion is slightly prominent, forming a low round-topped 'kopje' surrounded by a shallow trench. The mass appears to contain small white flakes enclosed in a capsule." I thought that there was no loss of corneal surface, but, rather to my surprise, on applying fluorescin, the whole vesicle appeared to stain green. The appearance of a trench or depression round the vesicle was, I suppose, caused by the light-reflex from the edge of the suctorial disc of the animal. The staining with fluorescin may have been due either to the animal itself staining, or to the roughened surface of the cornea below the animal accepting the stain.

I prescribed some perchloride lotion and other treatment, but without any effect. A week later, thinking that it might

The upper edge of the disc is represented as being turned down, though, as the whole animal is transparent, the edge there was not actually discernible. In all other respects the drawing is accurate.

be a vesicle containing lymph, I decided to scrape it, but on applying a spud for this purpose the whole mass lifted off the cornea, leaving only a slightly roughened surface. The patient had no further trouble. I sent the specimen to Mr. S. F. Harmer, D.Sc., F.R.S., of Cambridge, who very kindly examined it and reported as follows: "The parasite is a very obvious crustacean, belonging to the order copepoda, which includes many fish parasites. It certainly comes within the family caligidæ, and I think in the genus caligus. It is most probably caligus curtus.[1] The case is a very interesting one. The animal is certainly a fish parasite and I think it almost incredible that it should have got on to the eye in any other way than the one you suggest—namely, by the man rubbing his eye after handling a fish, or in some similar manner. The species I think it belongs to is common on turbot, various species of cod, and so on. Did you notice if it was dead when you removed it? You have, of course, noticed that it has strong hooks for attachment to its host. These might have got fixed in the cornea and remained so after the death of the parasite. I hardly think a marine crustacean could really live on a man's eye."

I was unable to determine whether the animal was alive, as at the time I removed it I had not got a microscope by me; but I thought it had slightly shifted its position during the week I had it under observation.

Harley-street, W.

THE USES OF OXYGEN INHALATION.

BY PERCY G. LODGE, L.S.A. LOND.

OF late I have frequently tried this plan of treatment. The few cases enumerated will give a fair idea of the practical side of the question. Perhaps some of those gentlemen whose experiences are greater than my own may be persuaded to record them from the perusal of this short article. In health we can get all the oxygen we require from the air, but with pathological changes the supply is obviously interfered with. The respiratory quotient will generally be altered and theoretically the increased percentage of oxygen which can be brought into the chest by inhalation ought to be often of great value. The observations of changes in pulse, temperature, and respiration have been carefully noted. The table inserted will graphically show the method employed. The figures are from a case of empyema not completed and still under treatment.

Changes in Pulse, Respiration, and Temperature in a Case of Empyema.

Before the administration of oxygen.			
Nov. 11th, 1899.	Pulse-beats per minute.	Respirations per minute.	Temperature.
5 A.M.	88	24	100·4° F.
8 A.M.	80	30	99·8° F.
1.30 P.M.	84	28	99·4° F.
8 P.M.	88	24	100·4° F.
9 P.M.	84	28	99·6° F.

Just after the administration of oxygen.				Quarter of an hour after.
Nov. 11th, 1899.	Pulse beats per minute.	Respirations per minute.	Temperature.	Temperature.
5 A.M.	88	22	100·0° F.	100·4° F.
8 A.M.	76	24	98·8° F.	99·8° F.
1.30 P.M.	80	24	98·6° F.	100·0° F.
8 P.M.	80	23	99·6° F.	99·8° F.
9 P.M.	80	24	99·2° F.	99·4° F.

CASE 1.—The patient, a man, aged 67 years, was first seen on Jan. 10th, 1899. He was a rheumatic patient and was subject to bronchitis. The temperature was normal. When seen he was suffering from a very bad cold with râles and rhonchi. There were pains in the back and limbs and the lips and finger-tips were slightly blue. Stimulants and other remedies were ordered. Oxygen inhalation was recommended on the third day. As the expectoration was very slight

[1] See Proceedings of the Zoological Society, 1899, p. 447.

apomorphine (1/8 gr.) was injected under the skin. This improved the expectoration slightly and enabled the patient to sleep on that night. The effect of the oxygen was very marked. The pulse, the temperature, and the breathing were all improved and better rest was obtained. Dr. A. Gray verified the figures and expressed himself as being much struck with the alteration produced by the gas. The temperature dropped from 102·5° F. to 101° and the pulse from 98 to 80; the respirations ranged from 30 to 24. The patient was discharged at the end of February.

CASE 2.—I was suddenly called on April 1st, 1899, to see a child, aged three years, who was in a fit, suffering from double pneumonia. The temperature was 104° F. and the pulse and respiration were very rapid. The patient was totally unconscious. No ordinary remedies were of any avail. Oxygen inhalation appeared to do much good for a time, but the case proved fatal on the fourth day.

CASE 3.—On the evening of April 9th, 1899, I was sent for to see a patient whom I found in bed with livid face and who was breathing rapidly (25 respirations per minute). The pulse was 100 per minute and the temperature was 102° F. The patient wore an anxious expression of countenance and suffered from pains about the chest. He complained of shivering attacks and of headache. The chest signs were medium-sized râles and a few rhonchi. The expectoration, which was thick and white, was scanty. He had some bronchial breathing at the base of the left lung. Oxygen inhalation was commenced on the third day of treatment for two minutes every three hours. He was so much improved after three days' treatment that it was discontinued. He remained under ordinary treatment until August 13th.

CASE 4.—The patient was a man, aged 57 years. I was called in on March 14th, 1899, during an influenza epidemic. The patient complained of pains in the head, the back, and the limbs. The pulse was 70, the respiration was 23, and the temperature was 99° F. He had nasal catarrh and slight coryza with pains in the chest. Oxygen inhalation was commenced on the fifth day of treatment. The patient said that he felt warmer and more natural after each inhalation and his appearance was improved at the time. (The notes of this case are very similar to those of Case 1.) His further progress was very slow and there was considerable nervous depression. He remained under my care until April 22nd, 1899.

CASE 5.—The patient, a female, aged 22 years, came under my care on Jan. 18th, 1899. She suffered from severe anæmia. An examination of the blood was made. It contained 2,000,000 red cells and 3000 leucocytes to the cubic millimetre; and hæmoglobin only 30 per cent. of normal. The red cells exhibited microcytes, macrocytes, and slight poikilocytosis. The patient's complexion was of a lemon tinge. She was fat and well nourished, but terribly weak. She often fainted after sitting up for half an hour. All the latest preparations of iron had been tried unsuccessfully and arsenic seemed of little use. Oxygen inhalation was commenced in February. The first result was very peculiar. The stream of oxygen was kept flowing for five minutes. I was called up at midnight and was told that she was dying. On arriving she was in a paroxysm of respiratory activity. I controlled this by the use of chloroform vapour. On the next day she was much better but still somewhat excitable in her breathing. Oxygen was only used now for one or two minutes at a time, twice daily. The milk and other cool drinks which the patient took were oxygenated by the passage of a stream of the gas through them. From this time onwards she steadily began to improve. At the beginning of June the blood contained 4,000,000 red cells to the cubic millimetre. The hæmoglobin and leucocytes were now nearly normal. She still complained much of her attacks of nervous breathing. Dr. Wells of Leeds saw her about this time. He agreed with me that this was probably functional. In July she could sit up, and from this time she improved rapidly. She was sent to Harrogate and returned well after a few weeks.

CASE 6.—The patient in this case had four years ago a very narrow escape from capillary bronchitis. He had suffered continually from chronic bronchitis for years. On Oct. 21st, 1899, I found him suffering from an unusually severe attack. His features were bloated and cyanosed. His extremities were cold and livid, respiration was laboured, and the temperature was 97° F., the pulse soft and full, about 70 per minute. I ascertained that the patient had been taking appropriate remedies and that he was in the habit of taking a proper quantity of stimulants. I ordered oxygen inhalation, three or four minutes at a time, to be administered every hour. Under its influence the cyanosis became less marked, the pulse stronger, and the breathing somewhat quieter. Even up to the fourth day good results were obtained by its use. It became, however, increasingly difficult for him to expectorate. His strength failed him and he died on Oct. 25th.

In Case 2 and Case 6 the patients were already *in extremis*, the beneficial effects were transient, and the treatment was of no ultimate avail. In Case 5 it is very difficult to say whether the oxygen was or was not a powerful factor in the recovery of the patient. I think it shortened the duration of the illness. In Case 1, Case 3, and Case 4, which were all serious, I saw from the first that every means available must be employed. The oxygen appeared to give moments of respiratory rest, very beneficial to the patients and very saving to their bodily strength. They were all over 50 years of age and each had marked nervous depression. None of these had any marked chest obstruction and in all these special treatment was begun early. The question arises as to whether this last consideration had anything to do with warding off further complications.

The beneficial action of the gas on the nervous centres and in the lungs can only serve us by improving the purity of the air breathed or by increasing the oxygen obtainable where this is interfered with by processes of disease in the lungs or tubes; neither must one lose sight of the antiseptic action of the gas on anaerobic microbes. My reason for using the oxygen in an intermittent manner is so as not to set up a dangerously protracted state of apnœa. A very nice apparatus for this purpose is similar to the one used for nitrous-oxide gas, failing it a piece of rubber tubing with vulcanite mouthpiece can be used but is very wasteful, having no bag or face-piece. I would like to suggest to the makers of cylinders that smaller ones which could be carried about with ease containing about three cubic feet of the liquefied gas would be a boon in cases of emergency to general practitioners.

Bradford.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CONCURRENT PNEUMONIA, DIPHTHERIA, AND TYPHOID FEVER.

BY DAVID HARRIS, M.R.C.S. ENG., L.R.C.P. IRELD., J.P.,
ASSISTANT SURGEON, TRANSPORT "UMBRIA"; FORMERLY MEDICAL OFFICER OF HEALTH, DIAMOND FIELDS, SOUTH AFRICA.

THE following case, which was under my care on the homeward journey of the transport *Umbria*, which arrived at Southampton on March 13th, may be of some interest.

The patient was a sergeant in the Northumberland Fusiliers. On Feb. 22nd he complained of shivering and general malaise, and owing to the prevalence of influenza in Cape Town he was promptly isolated. His temperature was 102·4° F. in the morning and 104° in the evening. Upon examining the chest I found crepitation over the left base posteriorly and double pneumonia developed next day. On Feb. 23rd his temperature was 102·6° in the morning and 104° in the evening. Two days later he complained of sore-throat and upon examination diphtheritic ulceration with membranous exudation was discovered beginning over the left anterior pillar of the fauces and subsequently attacking both pillars of both sides, the uvula, and the back of the pharynx, but not spreading beyond. On Feb. 25th his temperature was 104° in the morning and 101·4° in the evening. On the 26th it was 103° in the morning and 105° in the evening. It remained high for five or six days with morning remissions and as he now complained of abdominal tenderness examination revealed two rose-coloured spots. There was pain in the right iliac fossa (not very marked, however), together with distinct enlargement of the spleen. There was also some relaxation of the bowels with hæmorrhagic stools. The patient convalesced gradually, the first normal morning temperature occurring on March 7th. The treatment was at first carbonate of ammonium (two and a half grains) every three hours, with a powder consisting of 10 grains of sodium

salicylate and five grains of antipyrin whenever the temperature rose to 103°. The throat was painted four times with peroxide of hydrogen at the suggestion of my colleague, Dr. Charles Burland, a chlorate of potassium mouth wash being used also. On the diagnosis of typhoid fever being established liquor sodæ chlorinatæ (for which hint I am indebted to my brother, Dr. F. Harris, Cape Town) was given in 10 minim doses every three hours. Brandy was given throughout the whole course of the illness, half an ounce every two hours at first and subsequently half that quantity. A very interesting feature of the disease was the excellent pulse maintained throughout which I attribute to a stimulating treatment having been adopted from the first. It rose to 96 once, but for the most part it remained little above normal. Other circumstances of scientific interest were the non-antagonism of the various bacilli to each other and the rapidity with which the spleen resumed its normal size. Typhoid fever was doubtless present from the beginning, but was masked at first by the more prominent symptoms of the other affections.

Birchington-road, West Hampstead.

TYPHOID FEVER OF PROLONGED DURATION.

BY HENRY EDWARD BELCHER, L.R.C.P. LOND., M.R.C.S. ENG.

THE patient was a joiner and was perfectly well on July 25th, 1899. On the 26th he was seized with vomiting and diarrhœa, but he kept at work until the 31st, when I saw him sitting up at home. He had then (at 6 P.M.) a temperature of 104·2° F. and all the signs of typhoid fever. During the next week he had a very copious rash, mild delirium, about six stools daily, a temperature ranging between 103° in the morning and 104° at night, and a pulse of 108, only occasionally dicrotic. For the next fortnight his temperature stood most regularly at 102° in the morning and 103° at night until August 18th (the twenty-fourth day of the disease), when he passed about half a pint of dark blood-clot, and the temperature fell to 100°. For the next four days he passed abundant offensive flatus and tarry motions. He talked incessantly, and though his temperature touched 98·8° on August 22nd it quickly rose to 103° by 6 P.M. of August 27th (the thirty-third day of the disease) and 102° in the morning. At these points it kept until Sept. 11th (the forty-eighth day of the disease), when more clots and offensive flatus passed, with a recurrence of the incessant talking and shouting and tympanites, and followed on the 13th by the passage of a chamber-potful of blood-clot and fæces. In two days the morning temperature was normal and the high evening temperature subsided gradually, reaching the normal on Oct. 1st. At this point it kept during cautious increase of diet until Oct. 16th, on which date it again began to climb up, reaching 103° on the 21st, being accompanied with a return of rash, delirium, and all the other signs of typhoid fever. I then determined, at all hazards, to remove the patient to a more healthy house some distance off. The attack ran an ordinary course, but no hæmorrhage occurred, and the temperature reached normal for the third time on Nov. 5th (the one hundred and fifth day of the disease).

I cannot say that the case teaches much except, perhaps, the marvellous resistance to disease possessed by some patients. The medical treatment was *nil*; the patient had neither brandy, nor cold baths, nor skilled nursing; he lived almost entirely on eggs and milk which he took well throughout. He had a most copious rash over the chest, the abdomen, the back, and the thighs, but otherwise his symptoms and signs were not of extreme gravity. Neither he nor I at any time despaired of ultimate recovery. To any who would criticise the absence of active treatment I can at least say, "*Si monumentum requiris, circumspice.*"

West Bridgford, Notts.

A RAPID RESULT OF REVACCINATION.

BY WILLIAM GRADDON MORTIMER, M.B. LOND.

A MAN, 23 years of age, came to me last November to be revaccinated and this was done successfully with calf lymph in two places on the left arm. He had been vaccinated only once before—namely, as an infant. Eight months previously I had treated him for a curious warty condition of the skin around the edges and base of the nails of the index finger and middle finger of the right hand and of the thumb as well. It was only on the right hand; the left hand and the feet were free. This condition had existed for six years and had been steadily getting worse. All treatment employed by myself and others was of no use whatever. The warty condition always commenced underneath one of the side edges of the nail. The growths caked up underneath and slowly destroyed the edges of the nail. The nails were eventually left hard, uneven, cracked, and discoloured. For quite one-eighth of an inch the skin surrounding them was nothing but a large U-shaped wart. The discomfort and disfigurement were great. There were also three pedunculated warts beneath the chin. Among the remedies tried were ointment of tar, ichthyol, oleate of tin, acetic acid, and silver nitrate externally and sulphate of magnesia, arsenic, iodide of potassium, and solution of perchloride of mercury internally. Four days after the revaccination the warty condition began to diminish; within a week it had entirely disappeared and the warts beneath the chin disappeared as well. The man is now quite well.

Thorne, Doncaster.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum allorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. MARY'S HOSPITAL.

TWO CASES OF RESECTION FOR HIGH RECTAL CARCINOMA.

(Under the care of Mr. PAGE.)

THE results of the various forms of the trans-sacral operation for the radical cure of carcinoma of the rectum vary to no small extent in different sets of statistics. In 1897 Kraske[1] gave the results of his 80 cases; of these 15 died, a mortality of 18·7 per cent., but the mortality was diminishing, for in the first 29 cases it was over 34 per cent., but in the last 51 cases it had fallen to less than 10 per cent. This latter figure may be considered to represent the average mortality of the operation at the present day. Opinions vary greatly as to the advisability of a preliminary colotomy; if it is performed, it is better that it should be done a few days before the proctectomy, so that the colon has time to empty itself fully of the accumulated fæces. It is certainly unnecessary in some cases, but it is always useful, though the increase to the risk of the operation is well worthy of being considered.

CASE 1.—A married woman, aged 34 years, was admitted into St. Mary's Hospital on June 8th, 1899. She had enjoyed good health until the previous November when after a miscarriage she began to suffer pain in the back, and especially during defecation, with occasional traces of blood from the bowel. She also lost flesh. Dr. W. S. Whitcombe of Aldermaston, under whose care she came in April, 1899, detected a lump by rectal examination, and after some objections he ultimately persuaded her to go to St. Mary's Hospital for operation. No doubt was felt as to the correctness of his diagnosis of carcinoma, for having anæsthetised the patient it was possible to feel that just within reach of the finger there was a hard mass encircling the lumen of the bowel, being freely moveable and, although the finger could not get beyond it, seemingly most favourable for excision. Accordingly, on June 13th, with the invaluable help of Mr. H. S. Collier, the pelvis was opened by Mr. Page by the following method. The sphincter having been widely stretched, an incision was made eight inches in length along the left margin of the sacrum, diverging across the upper part of the coccyx and ending an inch beyond the coccyx on the right side. The coccyx itself was then removed, and by incision through the

[1] Brit. Med. Jour., Oct. 16th, 1897, p. 1069.

several structures attached to the sacrum the site of the growth was freely exposed and there was ample room for the subsequent manipulations. The peritoneum having been opened, the tumour was found to be of the size of a small Tangerine orange and completely to surround the gut. At its posterior part it was not covered by peritoneum. There was much puckering, but at no point had the external coats of the bowel been invaded. The resection of the bowel and the end-to-end union by Czerny-Lembert sutures presented no particular difficulties, but there was some little trouble in the arrest of hæmorrhage. Examination of the growth showed it to be an epithelioma involving the mucous coat of the whole circumference for one and a half inches in a longitudinal direction. The lumen was pervious to the tip of the little finger. There was no ulceration. The patient bore the operation well. In the course of the evening the house surgeon found it necessary to change the dressings because of hæmorrhage, and failing to find any bleeding points he had to plug the wound, in the lower part of which a drainage-tube had been inserted. There was no further trouble from bleeding, but on the 15th a wholly unexpected and copious evacuation of the bowels did not tend to make things more comfortable, and thereafter followed much trouble, for the bowels took upon themselves to discharge the accumulated collection of previous weeks in lumps of ancient fæces commingled with diarrhœa. Nothing could have been more inopportune, and there was no surprise when on June 19th fæcal matter was found escaping from the wound. The intestinal suture, at one point at any rate, had given way—at some place outside the peritoneum it was hoped. This fæcal flow continued unabated for several days, and on July 1st enemata had to be given to remove impacted lumps of hard fæces. For a day or two the patient was better but on the 8th Mr. Page thought it well to give her an anæsthetic and to wash out the lower bowel more effectually. Quantities of fæces were removed and it was then found that the fistula involved a very small part of the posterior wall of the bowel where, in fact, it was free of peritoneum, and that in all other parts the suturing held sound. Hopes, therefore, were entertained that the fistula might close spontaneously, and so, happily, it turned out, for as the flow of fæces lessened so also did the escape by the fistulous route, and by the end of July the bowels were acting naturally, the fistula was closed, and the wound was perfectly healed. The wound had indeed caused no trouble and save at the site of the drainage-tube had united by first intention. The patient left the hospital on Sept. 1st, her long stay having been due to the fact that in addition to the bowel trouble there had been phlebitis and plugging of the iliac veins, no slight complication in such a severe case. She continues to be in good health as reported by Dr. Whitcombe in the middle of February.

CASE 2.—A married woman, aged 43 years, was admitted to St. Mary's Hospital on Oct. 31st, 1899. She related no facts of importance in her previous history. Eight days before admission she had been seized with abdominal cramp; after two days she vomited; the vomiting continued off and on, there was no action of the bowels, and the passage of flatus even had ceased. The abdomen was much distended, but nothing was to be felt by abdominal palpation and rectal examination was also negative. The patient was singularly free from constitutional disturbance considering that she had had complete obstruction for a week and had been frequently vomiting. Operation was clearly indicated immediately, and the peritoneum having been opened in the middle line a hard lump of the size of a large chestnut was found at the lower part of the sigmoid loop. It was freely moveable and there was no difficulty in bringing it out of the wound, and resection with end-to-end anastomosis by the Czerny-Lembert method was undertaken forthwith. The growth was precisely the same as was found in the first case, but its longitudinal extent was not so great. Contraction, on the other hand, was much more marked and the lumen of the bowel would not admit even a small probe. The ultimate occlusion had been brought about by a small pellet of hardened fæces which was found lying immediately above the stricture. Recovery was uneventful and the patient left the hospital early in December. When seen in the middle of March she was in perfect health and free from all suspicion of bowel discomfort.

Remarks by Mr. PAGE.—These two cases afforded good illustrations of the different ways in which a stricture of the bowel due to epithelioma may first manifest itself. In the one there had for some time been premonitory symptoms of bowel disease and in the other complete obstruction of eight days' duration was the first evidence of wrong. Both were successfully dealt with by resection and end-to-end suture, the disease being reached in the one case by a modified Kraske's operation, while in the other a median laparotomy was necessary to discover the cause of the obstruction. It would be anatomically more correct, perhaps, to speak of the second case as one of carcinoma of the lower end of the sigmoid loop, for the term "rectum" ought to be limited to that part of the bowel which is below the level of the third segment of the sacrum and which is free of any meso-colon.

There is good reason to hope that both patients may be free from recurrence, for the malignant disease was of limited extent and had been discovered early. From causes given in the history recovery in the first case was protracted and troublesome, and it occurred to me at the time that it might have been well had a preliminary colotomy been the means of getting rid of the accumulated fæces, the passage of which over the recently sutured gut so nearly led to disaster. Every preparation for the resection had been made by enemata to evacuate the bowel, but it is quite clear that in this instance, at any rate, there had been so much obstruction before the patient attended at the hospital that no treatment of this kind could have put the bowels into a condition of quietude so essential for perfect success. Colotomy would have effected this, and had removal of the growth been found impossible the value of this procedure would have been enhanced. The need for colotomy is, of course, lessened if the surgeon intends or finds it possible to suture the proximal end of the bowel at the site of resection to the anal margin, for after this ideal operation the passage of fæces can do little harm; but it is far otherwise when fæces in large volume, especially if old and hard, have to pass the seat of recent resection and union. The colotomy wound, moreover, enables the surgeon to examine the growth from above as well as from below and may afford him valuable information as to the propriety and chances of removal of the sigmoid growth. For these reasons I have performed inguinal colotomy on a patient at this moment in the hospital and have thereby been able to determine that a high rectal growth apparently suitable for removal on rectal examination had much better be left alone. There is, therefore, a good deal to be said in favour of preliminary colotomy, but no hard-and-fast rule can be laid down, and the record of the second case is enough to show that recovery need not necessarily be interfered with by undue action of the bowels, for the after-course of the case was free from all trouble of the kind.

I am indebted to Mr. H. C. Wilson and Mr. Huelin for the notes of these cases.

GOVERNMENT CIVIL HOSPITAL, HONG-KONG.

TWO CASES OF MALIGNANT PUSTULE; RECOVERY.

(Under the care of Mr. J. BELL.)

THE methods of treatment which have been adopted in malignant anthrax vary greatly. The best results probably follow early and free excision with the application of a strong antiseptic to the surface of the wound. In warmer climates the death-rate appears to be much less than in this country, for Woolmer[1] has only met with two deaths in 500 cases, a mortality of only 0·4 per cent. The mortality in this country is said to be under 20 per cent. However certain the diagnosis may be from clinical signs it is always advisable to make a bacteriological examination, especially as the bacilli are so very easily recognised. The Factory Department of the Home Office are now giving every facility to medical practitioners for such bacteriological examinations.

CASE 1.—A Chinese youth, aged 16 years, was admitted into the Government Civil Hospital, Hong-Kong, on Jan. 1st. There was an indurated mass in the upper lip with a central black scab. The right side of the face was much swollen and both eyes were closed. The temperature was 101° F. The patient looked and felt very ill. The pustule was incised with a long tenotomy knife and bled freely. Perchloride fomentations were applied. Carbolic acid (eight grains) was given every four hours. The inflammation slowly subsided though the temperature kept between 99° and 105° (105° twice on the same day) till the tenth day, when a large abscess on the cheek was opened. The

[1] Brit. Med. Jour., vol. ii., 1898, p. 1912.

temperature then fell and kept normal throughout. On the fourth day the right knee-joint was very painful and full of fluid. Lead and opium fomentations were applied, the knee was put at rest on a splint and quinine was given internally, alternately with iodide of potassium and tonics. As the general health improved the pain and fluid disappeared, but the joint still remained puffy and much swollen when the patient left the hospital against advice on the fifty-second day.

CASE 2.—A Chinese girl, aged 17 years, was admitted into the hospital on Jan. 16th with a temperature of 104·8° F. and a hard brawny swelling in the upper lip with several small pustular spots. The inflammation extended to both sides of the face and both eyes were closed. The urine was normal. The swelling was freely incised and fomented with perchloride of mercury and the patient was given carbolic acid (six grains every four hours). She slowly improved and the temperature fell to normal on the thirteenth day after an abscess was opened under the left eyelid. Under tonics and diet the general condition improved and she was discharged cured on the fiftieth day.

Remarks by Mr. BELL.—In view of the report of a series of cases of this disease, which appeared in THE LANCET of Jan. 20th, 1900 (p. 164), traceable to skins from China I thought that these cases might be of interest. The pyæmic infection of the knee-joint in the first case was interesting and is, I believe, rare. I may mention that no other cause was present to account for it. The carbolic acid did not produce any symptoms though continued for over a week in both cases, but it did not seem to affect the disease to any extent. No history was obtainable of contact with skins in either case.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

The Changes of the Blood in Disease.

A MEETING of this society was held on April 3rd, Mr. A. PEARCE GOULD, the acting President, being in the chair.

Dr. SIDNEY MARTIN opened the discussion with a paper on the Changes of the Blood in Disease. The subject would be considered, he said, under three headings: (1) changes in coagulability; (2) changes in corpuscles, red and white; and (3) the presence in the blood of various toxic substances and the relation of the blood to infection. In regard to the first of these, Schmidt's simple statement that the formation of fibrin was due to the interaction of fibrin ferment on fibrinogen did not explain the whole matter, for it did not take into account the closer relation between the formation of fibrin and the presence of lime salts. By simply adding sodium oxalate (1 to 1000) to the blood as it was shed clotting was slowed considerably. On the other hand, by the addition of calcium chloride clotting was accelerated. These and other experiments went to show that coagulation could be ascribed to the interaction of lime salts with one another and the proteids of the blood. Their knowledge had been advanced by the study of late years of the nucleo-proteids, bodies containing phosphorus, and fibrin ferment was considered by some as a lime compound of a nucleo-proteid. Referring to the experiments of Wooldridge on intra-vascular clotting, this phenomenon had been produced without any injury to the vessel-wall by the intra-vascular injection of tissue fibrinogens which were in reality nucleo-proteids. Intra-vascular clotting frequently occurred without damage to the vessel-wall in infective disorders, and it was suggested that it might be due to the liberation of nucleo-proteids in the blood by the infective agents themselves. The fluidity of the blood was increased by the injection of albumoses, malt diastase, emulsin, and other bodies. Turning next to the changes of corpuscles in disease, the number as well as the character of both red and white varied between only small limits in health. The red cells were mesoblastic in origin and during the growing period of adult life were constantly being formed mainly from the marrow. The changes which the developing red corpuscles underwent were of importance in relation to the changes found in disease, and it was suggested that the alterations observed might be due to an arrest of development from the erythroblasts—i.e., the nucleated red marrow cells. This might account for the changes in shape and size observed in some forms of anæmia. Some were too small (microcytes) and some were too large (macrocytes), but Dr. Martin deprecated the use of Greek names for these simple changes. The chief alteration in structure consisted in nucleation. Vacuolation was sometimes observed in profound anæmias. The pale watery blood of chlorosis coagulated rapidly, but that of pernicious anæmia very slowly. In the latter the corpuscles showed no rouleaux formation, exhibited great variations in size and shape, and nuclei were frequently observed. Such a condition of blood could not arise spontaneously and appeared most likely to be induced by an intoxication of the body. There was some evidence to show that this intoxication might result from bacteria in the alimentary tract. As regards the white corpuscles normal variations in their number were greater than in those of the red. Their number was increased in some infective disorders, by gas poisoning, and under quinine and salicylates. There was no leucocytosis in typhoid fever, malaria, and tuberculosis. Leukæmia presented a very great increase and here myelocytes appeared in the blood derived from the marrow. A marked leucocytosis also occurred in connexion with a definite infective process which appeared to arise in the mouth. Turning in conclusion to the effect of certain toxic substances in the blood it was impossible to study some of the conditions just mentioned without feeling that their explanation lay in an 'auto-intoxication. All toxic substances had both a general action which might lead to death of the body and a specific action selecting certain tissues for their effects. In small repeated doses they led to the formation of two kinds of substances, one which was inimical to the life of the bacterium (anti-microbic), and another which counteracted the effects of the poison (antitoxic).

Professor C. S. SHERRINGTON (Liverpool) also read a paper on the same subject. He commenced by referring to the histology of the red corpuscle. The monotonous uniformity of these bodies was one of their leading features, a remarkable fact when it was remembered how active were the processes both of destruction and reproduction of these important little structures. Hamburger had used the red corpuscle as an index for the osmotic tension of various fluids. It was found that the different corpuscles were destroyed by different degrees of dilution. Probably nucleated corpuscles had a greater resistent power than the non-nucleated, and probably the newer or younger corpuscles had a greater resistance. The origin of red corpuscles was still a mystery. In malaria the corpuscles were broken up, but there was no evidence of excretion of hæmoglobin. The study of the resistance of the red corpuscles might be fruitful. A good method for estimating the alkalinity of the blood was still wanting. The leucocytes had been more thoroughly investigated especially during the last 15 years by the late Professor Kanthack. One of the outcomes of this was a more natural classification of leucocytes. There were two kinds. The finely granular or polynuclear variety was the most characteristic and most common; the coarsely granular, oxyphil, and eosinophilous corpuscle was the other, and these latter only formed 4 per cent. of all the leucocytes in normal blood. In regard to the first variety there was no definite evidence of excretion. The second kind had indubitable powers of excretion, though their function of phagocytosis was still in dispute. He had never observed an undoubted instance, though Durham and others had observed the phenomenon. Passing to the oxyphil corpuscles, among these was the large hyaline cell which undoubtedly possessed the power of phagocytosis, though it had not very active amœboid movements. For the purposes of diagnosis of the different forms of leukæmia these data did not advance their knowledge very much. There were still many questions to answer. Where did the leucocytes come from? Were they different cells—i.e., of different origin—or only phases in the life-history of the same cell? What were their uses in the body? He would also like to know more about the nature of the granulation, especially the oxyphil granulation. The coarser granular cells were rich in phosphorus and iron, but beyond this but little was known. The leucocytes had been regarded as carriers of glycogen, but he was not satisfied on this point. One aspect of the function of leucocytes related to inflammation. The hæmic leucocytes might be looked upon as a mobilised force which could be drafted off to some focus where their power of phagocytosis was brought into play, and they then became valuable defensive agents. These hæmic leucocytes did not themselves

share in the reparatory process and did not remain as part of the tissues involved. In regard to methods Professor Sherrington thought it was very important to be able to count the white and the red corpuscles in one specimen. The differentiation of all the various kinds of white cells could be seen quite well without staining. Blood films could be preserved by an oil seal in a cool room for 24 hours. Tinting them with methyl blue was a great advantage. As to the nature of the blood platelets much difference of opinion existed. He rather inclined to the view that they were not living elements of the blood at all. They were, he believed, of the nature of a precipitate containing proteids shed from the corpuscles or the plasma. The various clinical methods of examining blood were increasing and were ahead of physiological methods. The "drop-methods" were a great advance, especially the method of taking double measure—that is, the specific gravity of blood corpuscles and plasma together and then of the plasma alone. A routine practice of carrying out such observations would be useful. As an instance he had shown how large were the variations in short periods. An extensive operation, especially on the abdominal cavity, or severe local inflammation was accompanied by very rapid alterations in the volume of the blood and these alterations fell on the plasma. Roy and Cobbett had found that the volume of the blood was sometimes reduced by one-third in the course of a short time. He (Professor Sherrington) had seen the density increased 20 per cent. in a few hours, and this must be a very great strain on the heart; 99 per cent. of the force of the heart was used in overcoming the friction of the walls and this was regulated mainly by the viscidity of the blood. It must influence the work which had to be performed. In cholera it was the inspissated blood which overtaxed the heart.

The discussion was adjourned to the meeting on May 1st.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

Congenital Bullous Eruption.—Simulated Gastric Ulcer.—Exhibition of Cases.

A MEETING of this section was held on March 9th, Dr. J. W. MOORE, the President, being in the chair.

Dr. R. H KENNAN read a paper on a Fatal Case of Congenital Bullous Eruption. He discussed the two great classes of cases in which bullæ appeared on the infant—the so-called pemphigus neonatorum and the pemphigoid eruption of hereditary syphilis. He also referred to Dr. Wallace Beatty's paper on Epidermolysis Bullosa.[1] The principal points of interest in his case were the fatal termination, the remarkable localisation of the bullæ, the complete absence of history or sign of syphilis in either parent or surviving child, and of evidence of this taint post mortem, though the organs, epiphyses, and skin were carefully examined microscopically. What etiological factor produced the disease he was obliged to leave an open question.

Dr. W. J. THOMPSON read notes on a case Simulating a Perforating Gastric Ulcer. The patient, a female, aged 23 years, had a distinctly tuberculous family history, but had never herself been seriously ill until five or six weeks previously when she commenced to suffer from stomach trouble. In the beginning of the attack she had discomfort and flatulency after food with a tendency to nausea and a failing appetite. Later she complained of pain, at first localised to the pit of the stomach and afterwards extending to the back; it commenced shortly after food, lasted a couple of hours, and was frequently followed by vomiting. She never suffered from constipation. About one hour after having bread-and-milk for supper, which was followed by the usual pain and discomfort, the pain in the epigastrium suddenly became agonising and was followed by vomiting. The vomited matter was said to be dark and reddish in colour, otherwise there was no evidence of hæmorrhage. The pain was worse during the night and became more diffuse. The patient looked thin and anæmic and seemed to be suffering great pain. The epigastrium and upper portion of the abdomen extending towards the left was distended, rigid, and tender on percussion. The liver dulness was not affected. She was admitted to the Jervis-street Hospital and it was decided to operate. Just before operation and about 14 hours after the supposed perforation all the abdominal symptoms became aggravated, the temperature was 102° F., the pulse was feeble and 140 per minute, the respiration was shallow and thoracic, and 34 per minute.—Mr. CONWAY DWYER described the operation. The abdomen was opened by an incision extending from the ensiform cartilage to a point slightly to the left of the umbilicus. Owing to the great rigidity of the left rectus muscle, which persisted even under deep ether narcosis, it was found necessary to enlarge the incision transversely before sufficiently free access could be obtained for exploration. The anterior wall of the stomach was then examined and presented nothing abnormal. Before examining the posterior wall it was deemed advisable to explore the abdominal cavity lower down. The incision was accordingly enlarged in a downward direction and a coil of jejunum was brought into view in an intensely congested condition and having on its surface two gangrenous patches situated closely together and involving a third of the calibre of the bowel. No perforation had as yet taken place, but such a result was inevitable had the operation been delayed. The coil was drawn out and isolated by gauze (iodoform) strips, the contents of the loop were gently pressed downward, a clamp was applied, and the portion of bowel was resected; the junction of the divided intestine was effected with a Murphy's button and the abdominal cavity was flushed with sterile saline solution. The wound was closed all but the lower angle, through which was carried a gauze drain and placed close to the sutured bowel. The subsequent history was uneventful. The bowels moved five days after the operation and the button came away on the eighteenth. The case was of interest as exhibiting the liability to error in interpreting the precise conditions that produce severe abdominal symptoms. The previous history, the sudden nature of the attack, the localisation of the pain, all pointed to a perforating gastric ulcer—in fact, the physical signs and symptoms of this condition were present in their due sequence and severity, with the single exception of unaltered area of liver dulness; the absence of this last has, however, frequently been noticed. The lesion present was presumably due to infarction, but unfortunately the portion of intestine removed was mislaid.—Dr. R. TRAVERS SMITH, Dr. CRAIG, and others discussed the case.

Mr. CONOLLY NORMAN showed some cases illustrating the Relations of Insanity to Tabes Dorsalis.

[1] British Journal of Dermatology, vol. iv., p. 301, August, 1897.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.—A clinical meeting of this society was held on March 23rd, Professor C. J. Wright, the President, being in the chair.—Mr. Mayo Robson showed a case of Extra-peritoneal Rupture of the Bladder.—Dr. A. G. Barrs showed: 1. A case of Chylous Pleural Effusion in a woman. The case began as one of ordinary pleurisy and the effusion was clear in the first instance. There was no obvious cause to explain the chylous character of the effusion. 2. A case of Congenital Cardiac Defect.—Mr. H. Littlewood showed: 1. Pyloroplasty for Simple Pyloric Stenosis. The patient was a man, aged 49 years. The operation was performed in January, 1899. The patient had for three years suffered from frequent vomitings and had experienced great loss of weight. He was now quite well. 2. A case of Dilated Stomach due to bands extending from the under surface of the Liver to the Colon. An operation was performed in November, 1898, the bands being divided. The patient had been ailing for three years. The chief symptoms in the case were wasting, vomiting, and palpitation. He was now quite well. 3. Excision of the Rectum for Columnar Epithelioma in a man, aged 43 years. About four inches of the rectum were removed. The divided ends of the gut were sutured and primary union was obtained. No colotomy was done. The operation was performed in October, 1898. There was no recurrence. 4. Laminectomy for Spinal Caries with Paraplegia. The patient, a girl, aged 19 years, was operated upon in November, 1898. An abscess was found to be pressing on the spinal cord. There were no signs of improvement for six months. The patient could now walk without any support.—Dr. T. Wardrop Griffith showed: 1. A case of Cyanosis with Signs of Pulmonary Stenosis in a lad, aged nine years. The aspect was strongly suggestive of congenital malformation, but the history pointed to the stenosis having come on at the age of three years. 2. A well-marked example of general Ichthyosis Hystrix in a woman. Much comfort could be obtained by alkaline baths. 3. Two cases of General

Paralysis of the Insane in one of which arrest lasting about 12 months occurred. 4. Cases of Exophthalmic Goitre. In these cases Dr. Griffith had upon the whole got the most satisfactory results by using the old and somewhat discredited treatment by iron and digitalis.—Mr. B. G. A. Moynihan exhibited (1) a series of cases illustrating the Surgery of Simple Ulcer of the Stomach and Duodenum; and (2) a case of Achondroplasia, with photographs of several other cases.—Dr. A. L. Whitehead showed (1) a case in which a Plastic Operation had been performed after the Removal of a Rodent Ulcer of the Inner Canthus: (2) a case in which Epithelial Grafts had been used to Line the Cavity remaining after an Operation for Extensive Mastoid Disease; and (3) a case of Microphthalmos.—Dr. T. Churton showed: 1. A boy, apparently about 13 years of age, but who was really 19 years old, the sole survivor of a family of nine congenitally syphilitic children, with slow scanning speed, tremors, &c. He had improved under mercurial treatment, rest, &c. 2. A boy with a loud rough presystolic bruit with thrill, *àpropos* of the present dispute as to the time of the sound, whether it occurred during the auricular or the ventricular systole. It was regarded by all who examined the case as pre-ventricular—i.e., auricular-systolic. 3. A child, aged six months, with Excessive Retraction of the Head, without other signs, except some varied oculo-motor movements, of meningitis. The retraction had existed for five weeks; it could now be completely overcome without much force and without pain and did not recur for some minutes. The fingers were flexed and one thumb was in the palm, but these were readily straightened.—Mr. Secker Walker showed: 1. A case of Chronic Mastoid Disease in a child, aged three years. There had been facial paralysis for some weeks before the operation with great wasting. On opening the mastoid its posterior wall was found to be absorbed, the dura mater was ulcerated, and the sigmoid sinus was obliterated. The complete post-aural operation was performed and subsequently epithelial grafts were employed. The facial paralysis passed off and the wound had entirely healed. 2. A case of Chronic Otorrhœa of the Right Side in a youth aged 18 years. Four years ago the left lobe of the cerebellum was trephined for abscess secondary to left mastoid disease, the mastoid being operated upon at the same time. Complete recovery followed. A month ago the right mastoid was opened and extensive caries was found. The complete post-aural operation was performed, the incision was closed, and the dressing was applied through the enlarged meatus. The patient was recovering well. 3. A case of Entropion of the Outer Half of each Upper Eyelid treated by a modification of Spencer Watson's operation with good result.—Mr. Lawford Knaggs showed a case of Tuberculous Disease of both Hip-joints and of the Upper Epiphysis of one Humerus.—Dr. E. F. Trevelyan exhibited:—1. Five cases of Infantile Paralysis—one of the upper arm type, three of paraplegia, and one with a long-standing monoplegia. 2. Two cases of Athetosis in a boy aged six years and a man aged 21 years respectively. The infantile hemiplegia came on in both cases at the end of the first year of life and affected the right side. There was no affection of speech in either case but the intelligence was defective in the adult. 3. A case of Incoördinate Movements in the Right Arm and Hand in a woman, aged 59 years, suggesting Senile Chorea. 4. A case of Tabes Dorsalis with some Exaggeration of the Knee-jerks. The symptoms present were myosis, loss of the light reflex, bladder symptoms, and the usual pains. There was a history of syphilis. 5. A case of Ataxic Paraplegia in a man aged 35 years. 6. A boy, aged 10 years, with some Weakness in the Arm of Unexplained Origin. When he was told to extend the hand on the arm the flexors of the forearm were often put into marked action. 7. A girl, aged 22 years, who had attacks of Sweating of the Right Hand and Forearm. The attacks came on at irregular intervals and lasted for an hour or even for the whole day. The longest interval between the attacks had been three months and the affection had existed for four or five years. One such attack was actually seen. 8. A child the subject of Aortic Disease. 9. A woman with Recurrent and Multiple Papilloma of the Larynx.—Mr. W. H. Brown showed:—1. A case of Resection of Part of the Clavicle. Some time after the injury the patient was unable to raise his elbow to a higher level than his shoulder. The outer end of the clavicle was sawn through and removed. 2. A case of Compound Depressed Fracture of the Frontal Bone. The depressed piece of bone was of the size of a crown-piece. A part of the depressed bone was elevated and a part was removed. 3. A case of Amputation of the Leg for Diabetic Gangrene three years after the operation.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—An ordinary meeting of this society was held in the library of the Medical School, Thoresby-place, Leeds, on Friday, March 16th, the President, Dr. J. B. Hellier, being in the chair. The meeting was devoted to a discussion on the Treatment of Fibro-myoma of the Uterus. The special points selected for discussion were: (1) operative route; (2) myomectomy; (3) total *versus* supra-vaginal hysterectomy; (4) treatment of the appendages; (5) technique; (6) drainage; and (7) after-results of operations. A large number of specimens and drawings were exhibited by Mr. Stanmore Bishop, Dr. H. Briggs, and the President. Dr. T. B. Grimsdale (Liverpool), in opening the discussion, referred to the recent paper of Dr. Champneys on the Natural and Operative Mortality of Fibroids and considered that though the figures quoted by him were misleading in some respects still the mortality from fibroids which were left to themselves was low, and it behoved practitioners to be watchful that their methods of treatment did not become more dangerous than the disease. The indications for operative interference might be divided into relative and absolute. The relative indications comprised all the various well-known symptoms of these tumours, including the mere presence of a tumour. The absolute indications covered all the possible accidents which might happen calling for immediate operation. Of these Dr. Grimsdale had met with tumours obstructing delivery of a child, torsion of the pedicle of a sub-peritoneal tumour causing acute peritonitis, suppurating fibroid tumours, which might result sometimes from thrombosis of the vessels, and ascites from chronic peritonitis, especially in calcifying tumours. The relative indications might be divided into vaginal and abdominal. Amongst these might be: (1) rapid growth of the tumour, due sometimes to cystic degeneration; (2) pain due to pressure and often to accompanying disease of the appendages; (3) size and weight, incapacitating a patient; (4) pressure symptoms, especially on the bladder, the rectum, or the uterus; (5) severe hæmorrhage; and (6) fœtid vaginal discharge which usually indicated a tumour protruding into the vagina. As to choice of route, generally speaking vaginal symptoms required the vaginal route, while abdominal symptoms indicated the selection of the abdominal route. The combined method, Dr. Grimsdale considered, was often a confession of failure to complete the operation undertaken in the first place. In the choice of route various questions must be considered. The mortality after either abdominal or vaginal operation was mainly due to sepsis, and experience had seemed to show that it is easier to avoid infection from without by operating per vaginam, but now the results of abdominal operation are so good that it may be considered as safe as the vaginal route. The avoidance of hernia and the absence of a scar in vaginal operations are not factors of great importance. Against the vaginal route were these drawbacks: (1) difficulty of diagnosis in some cases; (2) the tediousness of the operation; and (3) the fact that myomectomy could rarely be carried out efficiently. Dr. Grimsdale preferred the method of Baer for abdominal hysterectomy, and did not use any drain. Myomectomy, which could be performed either through the mucosa of the uterus or through the peritoneum, had enormous possibilities of usefulness. In conclusion Dr. Grimsdale referred to the value of oöphorectomy and ligature of the uterine arteries in certain cases.—Mr. Stanmore Bishop (Manchester) considered that the combined method of operation was of great value in certain cases and that it might be adopted as a method of choice. It was easy to separate the vaginal mucosa and to ligature the uterine arteries from below. This made the abdominal section and removal from above a much simpler proceeding. He attached great importance to careful suturing of the peritoneal surfaces to avoid any possibility of a coil of bowel becoming adherent, and to avoidance of drainage after the operation.—Dr. H. Briggs (Liverpool) exhibited a series of Water-colour Drawings selected from 133 cases of Uterine Fibroids treated by him. By the vaginal route he had operated on 45 cases with uniform success. By the abdominal route the mortality had only exceeded 5 per cent. in old-standing broad ligament tumours placed deeply in the pelvis and often very adherent. Errors in diagnosis also (ovarian tumours, &c.) occurred and increased much the sufferings of patients

by operations often being delayed far too long.—Dr. J. Braithwaite (Leeds) pointed out that most operations for fibroids were mutilating procedures and he strongly recommended an extension of myomectomy in these cases.—Dr. A. Donald (Manchester) referred to the bad effects of long-continued hæmorrhage on the heart muscle which often indirectly led to a fatal termination in fibroid tumours. In some cases he had operated on account of marked œdema of the lower limbs due to pressure. He thought that asepsis was of more importance than the choice of method of operation. He considered that in certain cases oöphorectomy, which was distinctly safer than abdominal hysterectomy, gave excellent results.—Dr. J. E. Gemmell (Liverpool) endeavoured whenever possible to perform myomectomy.—Dr. Lloyd Roberts (Liverpool) considered that in young women myomectomy should always be performed if possible. Frequently, however, complete removal would be required, and he believed that the abdominal method was preferable in the great majority of cases. The "combined" method certainly shortened the duration of the operation and allowed for good drainage per vaginam. Broad ligament tumours were extremely formidable to remove; in many instances the ureters were in great danger of injury.—Dr. Arnold Lea (Manchester) referred to the similarity between thick-walled broad ligament cysts and inter-ligamentous fibroids. In any doubtful cases abdominal section should be performed. He also showed a Modification of the Corkscrew Tenaculum and a Curved Knife which were of value in vaginal enucleation of fibroids.—The President showed a Uterus removed by Panhysterectomy illustrating some of the points under discussion. He strongly advocated vaginal drainage after these operations since there was often a considerable amount of effusion into the pelvis.

MIDLAND MEDICAL SOCIETY.—The eighth ordinary meeting of this society was held on March 7th at the Medical Institute, Birmingham, the President, Dr. E. Rickards, being in the chair.—Mr. T. F. Chavasse showed a man, aged 42 years, upon whom in July, 1899, he had performed Pyloroplasty. The man had suffered from symptoms of pyloric obstruction for more than two years and his stomach was much dilated. At the operation the stricture was found to be of a fibrous nature and since its division his health and digestion had been excellent and he had gained a stone in weight.—Dr. Stacey Wilson showed a series of Casts of the Heart with Dilatation of the Right Ventricle illustrating his views on the origin and conduction of the pulmonary systolic murmur.—Dr. A. Foxwell read a paper on the Function of the Pericardium.——At the ninth meeting of the society, held on March 21st, the President, Dr. Rickards, being in the chair, the officers for the ensuing year were nominated.—Dr. Duncan Lawrie showed two photographs illustrating Osteitis Deformans—a front and side view. The bones that were chiefly affected were those of the legs, but the bones of the forearm were also much thickened and curved and there was marked exaggeration of the dorsal curve of the spine. The head apparently had not increased in size. The patient was 43 years of age and the disease had existed four years. Up to the time of his being incapacitated by the disease he had been a clog-dancer. Dr. Lawrie referred to over-exertion as a factor in the etiology. He also referred to the tendency of cases of osteitis deformans to develope malignant disease and suggested that the same physical degenerative condition which led to osteitis deformans was equally conducive to malignant growth. The patient in this case was badly nourished and had a pulmonary systolic murmur due to anæmia, but there was no sign of malignant disease. The treatment which had been adopted consisted of rest and the administration of iodide of potassium, iron, and cod-liver oil.—Dr. Billington showed a case of Hysterical Mutism. The patient, a woman, aged 31 years, had for nine years been unable to understand spoken language and had suffered from mutism. The onset of the condition was ascribed to a chill caught at a dance. After this she was for some weeks unable to see, hear, or speak, and she lay in a lethargic state. Subsequently she recovered her sight, but during the past nine years she had been unable to speak properly or to understand what was said to her. At the present time the patient could hear noises and voices speaking, but was unable to make out the meaning of the words, and all questions had to be put down in writing. Her speech was syllabic, each syllable being repeated quickly several times, but there was no true aphasia and no aphonia, though it was practically impossible to make out what she said. Her vision was fairly good and she could read and understand what she read. The fields of vision were very much contracted, that for colour vision being also very much contracted but about proportionally with the general contraction. Mentally the patient was intelligent and rather emotional. In the eight weeks during which she had been under close observation she had been quiet and had had no hysterical attacks. Her speech during that time had never changed and she had never given evidence of understanding spoken words. Her general health was very good and there was no evidence of any organic disease, nervous or otherwise. Powerful faradaism had been applied persistently both to the outside and to the inside of the larynx without any appreciable results.—Dr. Stacey Wilson read a paper on Some Diagnostic Difficulties which were apt to arise in Dilatation of the Right Ventricle.

WINDSOR AND DISTRICT MEDICAL SOCIETY.—A meeting of this society was held at the Guildhall, Windsor, on March 28th, the President, Mr. W. B. Holderness, being in the chair, when 21 members attended. Microscopical Preparations were shown by Dr. G. Leslie Eastes (a guest of the society), Dr. C. R. Elgood, and Mr. J. H. Tomlinson. In addition Spectroscopic Demonstrations were given by Dr. Eastes and Dr. Elgood, and Mr. Tomlinson showed an interesting case of Locomotor Ataxia. Seven gentlemen were elected, bringing the membership of the society to 93, and five candidates were nominated for election in April. Mr. J. H. Tomlinson (Egham) read a paper on Eye Symptoms in Tabes Dorsalis. He said that the present-day view of the pathology of tabes furnished an explanation of the occurrence of affections of the cerebral nerves in what was primarily a spinal disease. Not only did the downwardly extending axons of the spinal ganglia cells suffer degeneration, but also the upwardly extending axons which terminated in the bulb. Changes were seen in some of the nuclei of the cerebral nerves, especially in those of the second, third, and sixth. One of the earliest symptoms was the contracted immobile pupil. This gave rise to night blindness, which sometimes led patients to seek advice. Ocular paralyses were of common occurrence and were frequently fugitive. Recurrent ocular paralyses were almost diagnostic of tabes. During the course of optic atrophy disturbances of colour vision were occasionally experienced. Three cases of this condition were mentioned, one of them exhibiting a hitherto unrecorded phenomenon—i.e., that of alternation of complementary colours on alternate days.—The President and Mr. H. E. Bruce Porter spoke and Mr. Tomlinson replied.—Dr. C. R. Elgood (Windsor) read an interesting paper on Two Cases of Poisoning by Carbon Monoxide which led to a discussion, the President and Dr. M. Seymour Pembrey taking part. Dr. Pembrey said that he had been associated with Dr. Holden in two Commissions dealing with the subjects of explosions in coal-mines and water-gas. The breathing of carbon monoxide gave rise neither to pain nor to discomfort; it merely produced insensibility. As to the effect of exertion he did not think that it brought about extreme cardiac weakness; he rather thought the unfavourable effect was due to the greater amplitude of the inspiratory movements resulting in increased absorption of the gas. He commended electrical treatment of the heart. Animals in laboratories were now-a-days killed by coal-gas in preference to chloroform. Having referred to some fatal cases in the human subject he insisted that a certain proportion of "anæmics" owed their condition to the continued inhalation of modern coal-gas. He also pointed out that there may be leakage from a burner during the night, even though in the daytime no escape could be detected, this being due to variations in the gas-pressure. Hearty votes of thanks for their papers were accorded to Dr. Elgood and Mr. Tomlinson on the motion of Mr. J. Startin seconded by Mr. W. H. Beresford. 14 members and guests subsequently dined together at the Castle Hotel, Windsor, where a very pleasant evening was spent.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on March 20th, Mr. Horrocks, the President, being in the chair.—Dr. Bronner showed four cases of Mastoid Disease, demonstrating the different methods of operation.—Dr. Kerr showed a case of Chronic Adenitis of the Lacrymal, Parotid, and Submaxillary Glands, occurring in a girl, aged 11 years. The trouble had commenced with enlargement of both lacrymal

glands which was followed by swellings of both parotid and submaxillary glands, the enlargements being nodular and of almost cartilaginous hardness. There was a slight tenderness on deep pressure over the enlarged glands. There was some dulness on percussion over the sternum suggesting enlargement of the thymus. The temperature was from 100° F. to 101° for three weeks and there was very slow remission of symptoms. The case had now been going on for two months; the temperature was normal, but the pulse was 120. Dr. Kerr suggested that the condition might be chronic mumps.—Dr. Campbell showed a marked case of Hodgkin's disease which was steadily getting worse. Administration of arsenic had been followed on each occasion by a sudden rise of temperature, the temperature falling when the arsenic was discontinued.—Dr. Lankester showed the heart from a case of Ulcerative Endocarditis affecting the aortic valve only. The patient, a lad aged 18 years, had been in good health till the receipt of a blow on the chest, after which he developed symptoms of heart disease. Post mortem the heart showed hypertrophy and dilatation of the left ventricle, together with ulceration and agglutination of the cusps of the aortic valve. The mitral valve was healthy.—Dr. Jason Wood showed a specimen of Cancerous Peritonitis secondary to disease of the ovary.—Dr. J. Metcalfe read notes of a case of Appendicitis. The fever showed intermissions several times. During the fourth week of the illness and when the temperature had been normal for some days the patient had a sudden attack of pleurisy on the right side; signs of fluid were present, but none was obtained by exploratory aspiration. The patient was quite well at the end of seven weeks. Dr. Metcalfe considered that surgical interference was only advisable in cases of recurrent appendicitis or in cases where there was direct evidence of pus being present.—Mr. Althorp read notes of a case of Arterio-venous Aneurysm of the Cavernous Sinus and showed the patient. The trouble had supervened on an injury causing a fracture of the base of the skull. Marked proptosis came on with rapidly increasing defect of vision in the only remaining eye. Ligature of the common carotid artery was performed with a very satisfactory result.—Dr. Angus showed a specimen of Embolism of the Left Common Iliac, Left External Iliac, and Left Femoral and Right External Iliac Arteries from a patient who had suffered from double mitral disease. He had a sudden attack of paraplegia affecting the left leg more extensively than the right. Pulsation was at first absent in both femoral arteries, but returned in the artery on the right side on the day following the attack. The patient died ten weeks later from heart failure. The heart weighed 26 ounces. The left auricle was dilated and the mitral orifice was contracted. A firm clot extended from the bifurcation of the aorta to beyond the origin of the deep femoral artery on the left side, and another occluded the right internal iliac artery. Efficient collateral circulation appeared to have been established, as there was only a small superficial patch of necrosis on the left heel.—Dr. Eurich read notes of a case of Disseminated Sclerosis.

IPSWICH CLINICAL SOCIETY.—A meeting of this society was held on March 15th, Mr. Branford Edwards being in the chair.—Mr. A. W. Paterson read notes of a case of Hyperpyrexia occurring in a man suffering from acute rheumatism with endo- and peri-carditis. On June 6th the evening temperature was 103° F. At 4 A.M. Mr. Paterson found him comatose with a temperature of 109 4°. Towels wrung out of cold water were applied and in an hour the temperature had fallen to 108 4. A cold pack was then applied and the temperature fell to 106°. The chest and arms were rubbed with pieces of ice and an ice-water enema was given, and by 8 30 A.M. the temperature had fallen to 99·2°. Injections of ether and strychnine were given repeatedly, but the profound coma persisted. During the two following days the condition of the patient improved. The conjunctival reflex and the pupil reflex to light, which had been absent, returned. The patient's condition improved so that there seemed to be some hope of recovery, but on the fourth day from the hyperpyrexia he became worse, a considerable quantity of blood came from the bladder, and at 11 P.M. he died. The temperature had been kept down to from 99° to 101° by repeated ice-rubbing. The case was interesting from the failure to recover consciousness after the temperature was reduced, and from the considerable interval with partial improvement which elapsed between the hyperpyrexia and the fatal ending.—Mr. Paterson also read notes on a case of Hysteria in which the patient, a woman, produced a number of small pebbles daily from the vulva and urethra.—Mr. J. F. C. Hossack showed a case of Malignant Cystic Disease of the Breast. There was great enlargement of the breast and on aspirating two and a half pints of clear amber-coloured fluid were drawn off. Adenoma-like nodules could be felt. The patient refused operation. The cyst filled up rapidly after being aspirated.—Mr. W. W. Sinclair read a paper on Sympathetic Disease.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.—A meeting of this society was held at 20, Hanover-square, W., on March 28th, Dr. H. Radcliffe Crocker being in the chair.—Dr. Crocker showed a girl suffering from a second attack of Dermatitis Herpetiformis. He was treating her with salicin.—Dr. C. F. Marshall showed two cases of Pemphigus, a brother and sister. The woman was aged 19 years and the man 39 years. The disease dated from birth in both cases. The nails in both patients were uplifted from their beds. There were six other brothers and sisters in the family, all of whom were free from either skin or nail disease.—Dr. D. Walsh showed a case of Acne with Varioliform Characters.—Dr. A. Eddowes showed a case of Lupus of the Nose in a girl, the disease having started from within the nose cavity. He also showed a girl with Bazin's Disease. There was no ulceration. She had a good family history so far as tubercle was concerned.—Dr. J. H. Stowers remarked upon the good effects produced by the local application of bisulphuret of mercury ointment, six grains to the ounce.—Dr. T. D. Savill showed a peculiar case of Acne of the Face in a girl.—Dr. Crocker considered it to be a sweat follicular eruption, what he had termed sweat acne rosacea. He treated such cases with ichthyol internally and remarked upon the possible disfiguring effects if lead applications were used locally during the treatment.—Mr. G. Pernet read notes of a case of Multiple Cancer of the Skin by Dr. Allworthy of Belfast. Mr. Pernet specially pointed out that on section occasional melanotic patches were visible. No melanosis was observable on the surface of the skin or tumours.—Dr. D. Walsh read notes of the progress and end of a case of Mycosis Fungoides previously shown to the society.

Reviews and Notices of Books.

Report of the Malaria Expedition of the Liverpool School of Tropical Medicine and Medical Parasitology. Memoir II. By MAJOR RONALD ROSS, I.M.S., Lecturer in Tropical Medicine, University College, Liverpool; Dr. H. E ANNETT, Demonstrator in Tropical Pathology; and Mr. E. E. AUSTEN, of the Zoological Department of the British Museum. With Supplementary Reports by Major G. M. GILES, I.M.S., and Dr. R. FIELDING-OULD. Illustrated with Maps and Plates. Liverpool: University Press. 1900. Pp. 58. Price 10*s.* 6*d.* net.

THE introductory remarks of the above report deal with the discovery of the hæmamœbidæ, a group of unicellular parasites of the red blood corpuscle found in man and in certain kinds of monkeys, bats, birds, and frogs, a description of which was given in Memoir I. which was published in THE LANCET of Feb. 3rd. Some alterations have been made in the terminology of Memoir II. For instance, the word "mosquito" has been discarded for its English equivalent, "gnat," which is looked upon as a synonymous term. The terms "malaria" and "malarial fever" are also stated to be unsound, while "paludism" is inexact. The authors venture to suggest the appellations "hæmamœbiasis" or "gnat-fever" for the disease which is the subject of the report, which, they consider, will at least serve to popularise more correct notions of the malady than are implied in the word "malaria." Chapter II. includes a description of Freetown, the capital of the British colony of Sierra Leone, which contains a population of upwards of 30,000 persons and has an excellent water-supply which is brought from the adjacent hills in pipes. There is neither sewage drainage nor removal system for night-soil. Deep pits, or rather

wells, covered by a privy and seat, are employed. Mangrove swamps occur in some of the bays and creeks of the shore. Collections of water suitable for the larvæ of gnats abounded in the town at the time of the visit of the expedition, it being the rainy reason. Statistics of the average monthly rates of admission to hospital of troops suffering from malarial fever and also of the average monthly rainfall, humidity, and temperature in Sierra Leone during seven years are given in this chapter. The report further deals in an elaborate manner with the method of diffusion of malaria by inoculation through the proboscis of the anopheles, and affirms that the fact that malarial fever is communicated from sick to healthy persons by the anopheles seems sufficient to explain all the well-established laws regarding the prevalence and diffusion of disease. Caution must always be used before accepting popular theories regarding the diffusion of disease; but it is remarkable that many such ideas respecting malaria are explained and justified by the discovery that the disease is carried by anopheles. The principal points are briefly indicated by the following facts. 1. Malaria is endemic. Anopheles are more numerous at some spots than at others and are entirely absent from many places. 2. Swampy ground favours malaria. Anopheles breed in surface puddles. 3. Level ground favours malaria. Pools suitable for anopheles must be more common on level than on sloping ground—e.g., on plains and in valleys—than on mountain sides. 4. Rain favours malaria. Anopheles pools largely depend on rainfall. 5. Malaria is connected with decaying rock. Anopheles may breed in hollows in rocks. 6. Malaria often occurs when the soil is disturbed. Digging must often result in the formation of puddles suitable for anopheles. 7. Embankments favour malaria; they also favour the formation of surface puddles. 8. Towns are inimical to malaria. Stagnant surface puddles are not likely to be as numerous in crowded, well-drained, cities, as in rural areas. 9. Cultivation and surface drainage tend to remove malaria; they also tend to remove waste water suitable for anopheles when lying on the ground. 10. Malaria is not particularly connected with large bodies of water. Gnats do not often breed in such. 11. Malaria occurs on ships. Gnats, including anopheles, visit ships. 12. It is particularly dangerous to sleep in malarious places, especially at night. Gnats easily bite sleeping persons and usually feed at night. 13. Ground floors are most dangerous. Gnats seem to remain near the ground. 14. Mosquito-nets protect from malaria; they also protect from gnats. 15. Warmth favours malaria; it also favours gnats and the hæmamœbidæ within them. The report enters more minutely than did Memoir I. into the life-history of the hæmamœbidæ. Measures are further indicated for the prevention of malaria which may be resolved into two classes—namely, precautions against the bites of gnats and measures for reducing their numbers. The report has been compiled with much labour and care and will prove a valuable contribution to the literature of malaria. It is dedicated to Mr. Chamberlain, Secretary of State for the Colonies.

Difficult Digestion due to Displacements. By A. SYMONS ECCLES, M.B. Aberd. London: Baillière, Tindall, and Cox. 1899. Pp. 136. Illustrated. Price 4*s*.

THE author explains in his introduction that the contents of this book are a collection of notes of some cases of difficult digestion due to displacements of certain abdominal viscera. The work is not intended to assume the character of an exhaustive treatise on the subject of enteroptosis, but Dr. Eccles wishes that it may be regarded as a contribution to the clinical study of conditions which are not altogether without importance.

The subjects considered are gastroptosis, moveable kidney, general enteroptosis, and prolapse of the sigmoid flexure. The general plan of the book does not lend itself to ready reference and a large proportion of its pages are occupied with a detailed account of cases which have come under the author's notice and which form rather tedious reading. It would have been better if these accounts had been curtailed and Dr. Eccles's conclusions from them amplified. The term "gastroptosis" is applied to a condition in which the upper border of the fundus does not appear to fall below the level of the seventh costal cartilage at its most dependent point, or, in other words, below an imaginary horizontal line drawn round the left chest from the tenth dorsal spinous process.

Minute directions are given as to the methods of clinical examinations, and amongst the instruments employed are the phonendoscope, the phonometer, and the tuning-fork. We must admit that we are not favourably impressed by Dr. Eccles's remarks, and the value of the tuning-fork as an aid to diagnosis is certainly open to doubt. Moreover, the author does not state whether he has corroborated his clinical observations by experiments in the post-mortem room, and, therefore, whether it is possible to define the lower limits of the stomach when the transverse colon overlies it by the difference between the quality of the note of the tuning-fork.

The chapter on Prolapse of the Sigmoid Flexure is about the best in the book, although it is needlessly prolonged by the lengthy description of cases.

On Granular Kidney and Physiological Albuminuria. Being the Lettsomian Lectures delivered before the Medical Society of London. By SAMUEL WEST, M.A., M.D. Oxon., F.R.C.P. Lond., Assistant Physician, St. Bartholomew's Hospital, Senior Physician, Royal Free Hospital, &c. London: Henry J. Glaisher. 1900. Pp. 198. Price 7*s*. 6*d*.

THE title of this work would seem to imply that it is simply a reprint of the Lettsomian Lectures, which were published in THE LANCET at the time when Dr. West delivered them. As a matter of fact, however, the book contains a great deal more matter than this; half of it is quite new, and the clinical part has been remodelled, expanded, and illustrated freely with cases, so that the author now presents us with a complete monograph on granular kidney and physiological albuminuria. Granular kidney is a disease of great importance on account of its frequency which is by no means adequately recognised. It is often discovered post mortem when not suspected. It is often in itself the cause of death, and often explains why death has happened in other diseases which otherwise might not have proved fatal. During life it is often discovered unexpectedly if looked for; it is often overlooked if not suspected; and it often explains a case which has been a puzzle until the recognition of granular kidney gave the key to its solution. Dr. West, therefore, wisely chose for his Lettsomian Lectures a subject of considerable practical importance and general interest, and one upon which, at the same time, he could speak with the voice of authority, having given to the condition special study.

In discussing the pathology and etiology of granular kidney reference is made to the relation of the disease to acute nephritis; without expressing any dogmatic opinion on the point, Dr. West says that although he has been on the watch for years for cases proving that acute parenchymatous nephritis might end in a granular kidney, he himself has never seen one. He has seen many in which the former disease has gone so far as to produce a somewhat diminished white kidney, but he has never been able to trace a single case beyond this. On the other hand, he is careful not to say that it can never be so traced; on the contrary, he thinks it may. We believe that this point—the etiology of

granular kidney—still remains undecided, many authorities maintaining that an acute parenchymatous nephritis never actually passes beyond the contracting white stage, whilst others believe that the process may be traced further until the contracted red kidney is produced.

The relation of granular kidney to arterial disease is discussed at some length and the following conclusion is arrived at—that, "whether primarily arterial or primarily renal, granular kidney is a disease *sui generis*, and ought on that account to be treated, in writing upon the subject, under a separate heading and not split up, as it generally is, between diseases of the arteries, on the one hand, and diseases of the kidneys on the other." The author speaks quite as definitely on the relation of gout to granular kidney; he admits the frequent co-existence of the two conditions but maintains that this does not establish the relation between them, "for in the one case an elderly person who has long suffered from gout may, as a consequence, develop atheromatous changes in his vessels, which may lead to interstitial changes in the kidney; while a younger person with granular kidney develops gout in consequence of the renal disease." In other words, it is stated that gouty kidneys and granular kidneys are not necessarily identical. If Dr. West's contention receives general recognition the synonymous employment of these expressions, which appears in most text-books, will need alteration.

The remarks on Thickening of the Arteries and on High Tension will well repay perusal. Dr. West believes that there is presumptive evidence in favour of regarding certain cases of high pulse-tension or thickened arteries in the young as the initial stages of granular kidney.

An important section of the book is the one dealing with albuminuria. There has been much discussion during recent years regarding "physiological albuminuria," especially in relationship with life assurance. Dr. West considers no albuminuria as being, strictly speaking, physiological; "it is always pathological, though not necessarily renal." A great deal of interest lies in trying to ascertain the courses which these cases run in after life, and for details of the discussion we refer our readers to the work now under notice. Considerable stress is naturally laid on the age of the patient yielding the phenomenon of albuminuria. All cases must be carefully watched for a long time before nephritis can be positively excluded; the more constant and persistent the albuminuria the greater is the probability of renal disease, and the longer it continues the more serious is the outlook. Before 25 years of age many cases may be curable, after 25 years of age the chances of the albuminuria being due to renal disease increase rapidly and these facts have to be especially borne in mind in relation to life assurance.

Dr. West enters very fully into the description and consideration of albuminuric retinitis and draws a sharp distinction between the two forms, the degenerative and the exudative.

The clinical description of the symptoms of granular kidney is excellently portrayed. Two groups are described: the cardio-vascular and the toxæmic, and the introduction of numerous illustrative cases adds to the interest of the descriptions.

The chapter on Treatment should prove most helpful to all practitioners; a more hopeful tone is adopted than is generally the case with authors discussing the subject. Dr. West maintains that the great difficulty to be contended with is the belief that granular kidney is an incurable disease and that nothing can be done for the patient. When the disease is properly recognised and treated it "is compatible with a fairly long life and with a fairly comfortable life too." The earlier the diagnosis is made the better is the prognosis. The dangers that threaten the patient can then be guarded against and so life can be greatly prolonged.

The whole book is written in a style that is very readable. At the end of each section or sub-section the subject-matter is summed up under the head of "Conclusions." This renders reference more easy and also enables the reader to refresh his memory with regard to what he has already read. Dr. West may be congratulated on having produced a valuable and instructive book on a disease which is very common and yet very imperfectly understood.

Dictionary of National Biography. Edited by SIDNEY LEE. Vol. LX. Watson—Whewell. London: Smith, Elder, and Co. 1899. Pp. 469. Price 15*s*.

THE most important figure in this volume, from the general reader's point of view, is the first Duke of Wellington. The biography of him is by Colonel E. M. Lloyd, R.E., extends to 35 pages, and concludes with an extract from Lord Roberts's "Rise of Wellington," in which his military talents and those of Napoleon are compared as follows: "It may be conceded that the schemes of the French emperor were more comprehensive, his genius more dazzling, and his imagination more vivid than Wellington's. On the other hand, the latter excelled in that coolness of judgment which Napoleon himself described as 'the foremost quality in a general.'"

The biographies of medical men are 26 in number. Of the individuals thus commemorated one was a president of the Royal College of Physicians of London, one a president of the Royal College of Surgeons of England, and one a president of the Faculty of Physicians and Surgeons of Glasgow; of the whole number only six were born during the present century (i.e., later than 1800). Thomas Watson was born in Devonshire in 1792, entered at St. John's College, Cambridge, in 1811, graduated B.A. as tenth wrangler in 1815, and was elected a Fellow in 1816. After studying medicine at St. Bartholomew's Hospital and in Edinburgh he again resided at Cambridge, where he was junior proctor in 1823–24 and graduated M.D. in 1825. In 1826 he was elected a Fellow of the Royal College of Physicians of London and in 1827 physician to the Middlesex Hospital which was then connected with University College. He was professor of clinical medicine and lectured from 1828 to 1831. In 1831 he became lecturer on forensic medicine at King's College, London, and in 1835 professor of medicine, an office which he held till 1840. He continued to be physician to the Middlesex Hospital till 1843. In that year he published his "Lectures on the Principles and Practice of Physic," which had first been printed in the *Medical Times and Gazette*, and continued to be for 30 years the chief English text-book of medicine. "It contains no discoveries, but is based upon sound clinical observations, gives a complete view of English medicine of its period, and is remarkable for its good literary style." In 1859 he was appointed physician extraordinary to the Queen and in 1870 physician in ordinary. He was one of the physicians who attended the Prince Consort in his last illness. In 1862 he was elected president of the Royal College of Physicians of London and was re-elected for five successive years. He was created a baronet in 1866, retired from practice soon after 1870, and died in 1882. Thomas Spencer Wells was born in Hertfordshire in 1818 and after being a pupil to practitioners in Barnsley and Leeds proceeded to Trinity College, Dublin, in 1836. In 1839 he entered as a student at St. Thomas's Hospital in London, in 1841 became qualified as M.R.C.S. Eng., and in 1844 was admitted a Fellow. After six years' service in the navy, passed at a hospital in Malta, followed by a visit to Paris and Egypt, he settled in London in 1853 and in 1854 was elected surgeon to the Samaritan Free Hospital for Women and Children, then situated in Orchard-street,

Portman-square. At the same time he was editor of the *Medical Times and Gazette* and in 1857 he became lecturer upon surgery at the Grosvenor-place School of Medicine which eight years later was merged in the medical school of St. George's Hospital. Spencer Wells completed his first successful ovariotomy in February, 1858, and in 1880 he performed his thousandth ovariotomy. For exactly 20 years he operated at the Samaritan Free Hospital where he resigned his position as surgeon in 1878. "Wells was the originator of modern abdominal surgery. He found ovariotomy a discredited operation, but even before the introduction of antiseptics his success was sufficient to render its performance justifiable." He filled all the principal offices at the Royal College of Surgeons of England, being president in 1883 and receiving a baronetcy in the same year. Spencer Wells was an ardent advocate of cremation and on his death in 1897 his remains were cremated at Woking, the ashes being interred in the Brompton cemetery. William Watson was born in London in 1715, followed the profession of an apothecary, and was elected a Fellow of the Royal Society in 1741, between which date and his death in 1787 he contributed to the "Philosophical Transactions" more than 58 papers on natural history, electricity, and medicine. In 1759 he was admitted L.R.C.P. Lond., and in 1762 was chosen physician to the Foundling Hospital. In 1784 he was elected F.R.C.P. Lond., was censor of the College in 1785 and 1786, and was knighted in the latter year. John Webb, born in Dublin in 1772, was appointed an assistant surgeon in the army in 1794, and rose to be inspector-general in 1809 and Director-General in 1813. It is stated that he had the degree of M.D., but of what university is not known. He received the diploma of M.R.C.S. Eng. in 1817, and was made a Fellow in December, 1843, being one of the first batch of 300 Fellows created at that date. He was knighted in 1821, retired on full pay in 1850, and died in 1852. John Wedderburn was born at Dundee in 1599, graduated at St. Andrews University in 1618, was appointed physician to the King, was knighted, and obtained a pension from Charles I. He was incorporated M.D. of Oxford University in 1646 and died in 1679. John Forbes Watson was born in Scotland in 1827, studied medicine at the university of Aberdeen, and graduated there as M.D. in 1847. Appointed assistant surgeon in the Bombay army in 1850 he afterwards became lecturer on physiology at the Grant Medical College, where for a time he also acted as professor of medicine and lectured on clinical medicine. He returned to England in 1853, and in 1858 was nominated by the Secretary of State reporter on the products of India and director of the India Museum, appointments which he held till the transference to South Kensington of the India Museum in 1879. He was the author of several works on subjects relating to India. He retired from the India Office in 1880 and died in 1892. Robert Watt was born in Ayrshire in 1774, studied medicine in Glasgow, and in 1799 received the diploma of L.F.P.S. Glasg., to which was added the degree of M.D. from King's College, Aberdeen, in 1810. In 1814 he was elected president of the Faculty of Physicians and Surgeons and physician to the Royal Infirmary of Glasgow. He was also a founder and the first president of the Glasgow Medical Society. He was the author of several works, but the one on which his reputation rests is the "Bibliotheca Britannica," which began to appear shortly before the author died in 1819, and finally left the press in 1824. The writer of the notice says of this work that it "is still one of the handiest tools of the librarian and bibliographer." Francis Cornelius Webb was born in London in 1826, studied medicine at University College, received the diploma of M.R.C.S. Eng. in 1847, and graduated as M.D. at Edinburgh University in 1850. In 1857 he was nominated to the chair of medical jurisprudence in the Grosvenor-place School of Medicine, and subsequently he was lecturer on natural history at the Metropolitan School of Dental Science. He published several original works, and contributed notes to John Hunter's treatise on the teeth. "Hunter's Natural History of the Human Teeth," with notes by Webb and R. T. Hulme, appeared in 1865. A few years later Webb became one of the editors of the *Medical Times and Gazette*, and for the last years of his life he was editor-in-chief. He died in 1873. William Charles Wells was born of Scottish parents in Charlestown, South Carolina, in 1757, studied medicine in Edinburgh and graduated there as M.D. in 1780. About 1785 he settled in London. In 1795 he was elected assistant physician to St. Thomas's Hospital and in 1800 physician, which office he held till his death in 1817. In 1814 he published "An Essay on Dew" which has made his name familiar to meteorologists. For this, the first exact explanation of the phenomena of dew, he was awarded the Rumford medal of the Royal Society. Friedrich Martin Josef Welwitsch, born in Austria in 1807, and M.D. of the University of Vienna, was a distinguished botanist, most of whose work was done in Portugal and tropical Africa. He lived in England, studying and arranging his collections, from 1863 till his death in London in 1872. Thomas Wendy, a member of a Suffolk family, was born in 1499 or 1500, studied medicine abroad, graduated as M.D. at Ferrara, and was incorporated in this degree at Cambridge in 1527. He was physician successively to Henry VIII., Edward VI., and Queen Mary. He died in 1560. Charles West was born in London in 1816, studied medicine in London and on the continent, and graduated M.D. of Berlin University in 1837. In 1845 he became lecturer on midwifery to the Middlesex Hospital; in 1848 he was appointed lecturer on the same subject to St. Bartholomew's Hospital and held office for 12 years. In 1852, largely owing to his exertions, the Hospital for Sick Children was opened in Dr. Richard Mead's house in Great Ormond-street, London, and he became its senior physician, an office which he held for 23 years. He died in Paris in 1898. Nathaniel Thomas Wetherell was born in 1800, studied medicine at the Middlesex Hospital, and after passing the examinations of the Royal College of Surgeons of England settled at Highgate. He formed important geological collections which were ultimately acquired by the British Museum and the Jermyn-street Museum. He died at Highgate in 1875. Henry Thornton Wharton was born at Mitcham in 1846 and studied medicine at Oxford and at University College, London. He took the degrees of B.A. and M.A. at Oxford in 1871 and 1874 respectively, and the diploma of M.R.C.S. Eng. in 1875. He practised for some years at South Hampstead and died there in 1895. He is best known for an admirable book on Sappho, which has passed through four editions. He was also one of the joint compilers of the official list of British birds issued by the British Ornithologists' Union (1883).

Among the non-medical biographies, reference may be made to that of James Watson (1799–1874), "radical publisher," of whom it is said that Thomas Wakley, the Founder of THE LANCET, was "among his comrades in the most active period of his life." The present volume also contains a biographical notice of Benjamin Robert Wheatley (1819–1884), bibliographer, well known as a compiler of catalogues and indices. In 1855 he was appointed resident librarian of the Royal Medical and Chirurgical Society.

LIBRARY TABLE.

Medical Indoor Gymnastics. By D. G. M. SCHREIBER, M.D. London and Edinburgh: Williams and Norgate. 1899. Pp. 98. Price 3*s.* net.—This work gives simple

instruction for the practice of gymnastic exercises without the aid of any apparatus other than a stick or light dumb-bells. Dr. Schreiber's instructions show plainly how very simple exercises may be easily within the reach of all. We are glad to see a warning against the use of heavy dumb-bells.

The Private Nurse. By JESSIE HOLMES, M.R.B.N.A. London: T. Fisher Unwin. 1899. Pp. 113. Price 3*s.* 6*d.*—This is a brightly-written book by one who is evidently an intelligent and observant woman. Like Sam Weller's knowledge of London Miss Holmes's experiences of nursing are "extensive and peculiar." Her field of duty has varied from large private houses, universities, and public schools to the slums of Whitechapel and little country villages suffering from an epidemic of typhoid fever. It would be an excellent book to give to any young woman thinking of taking up nursing as a calling.

The Health Resorts of Europe. By THOMAS LINN, M.D., of Nice and Aix-les-Bains. Seventh year of publication. London: Henry Kimpton and Hirschfeld Brothers. Pp. 266 and Index.—This will be found a useful little guide-book to the chief British and continental health-resorts. By useful we mean that it gives clear details of how to get to various places, but in many ways the book seems to be somewhat carelessly written. The "Therapeutical Index" should either be enlarged or done away with. For instance, under the head of "Hæmatemesis" we find Vichy and Homburg put down as places to go to. Apart from the fact that hæmatemesis is a symptom and not a disease, one of its most common causes is morbus cordis. Yet under the heading of "Heart Disease" neither Vichy nor Homburg is mentioned, though it is true that Dr. Linn adds to his list "a number of German health resorts." Again, we find on page 298 in the section on Spain, the following statement: "the springs containing nitrogen gas not found elsewhere in Europe," while on page 155 in the section on Buxton it is stated that the waters "contain a considerable surcharge of pure nitrogen gas." We may mention that the Bath waters also contain large quantities of nitrogen together with argon and helion.

Home Nursing of Sick Children. By J. D. E. MORTIMER, M.B. London: The Scientific Press. 1899. Pp. 71. Price 1*s.*—This is an excellent set of notes upon a subject too often imperfectly understood. The ignorance of many persons in dealing with children is astonishing and Dr. Mortimer's hints will be of great use not only to those for whom they are specially written—namely, hospital-trained nurses—but also to parents. In the section upon Infantile Paralysis we are rather surprised to see that Dr. Mortimer omits any reference to the value of electricity as an aid to restoring the nutrition and function of the muscles. We have seen the persevering application of an interrupted current work wonders, but treatment must be continued for months or even years—a point which Dr. Mortimer rightly insists upon in his mention of other methods of treatment.

New Inventions.

A NEW INCUBATOR.

DR. C. TONZIG, senior assistant to the Istituto d'Igiene of the University of Padua, has sent us a photograph and description of a new incubator for gelatin cultures which is said to be very satisfactory in its action. It consists of a wooden case of which the horizontal measurements are 22 inches by 15 inches, and the height 23 inches. A tube of sheet zinc three inches in diameter passes vertically through the middle of the wooden case and projects both above and below. At the lower end it is expanded into the shape of a flat-bottomed cone, beneath which a gas flame is placed. At the upper end there is a thermometer and a thermo-regulator for the gas supply. The zinc tube is filled with water which is heated 10° C. above the temperature required in the incubator. Observations made in the bacteriological laboratories of the Istituto d'Igiene showed that the temperature thus produced in the incubator was constant and uniform, and that when regulated to 20° C. it did not rise over 22° C., so that there was no melting of the gelatin even when the temperature of the room rose to 19° C. (66° F.). These observations were made with several thermometers placed at different levels in the incubator, and also with a Richards registering thermometer.

THE VERIFICATION OF DOUBTFUL CASES OF ANTHRAX: ACTION OF THE HOME OFFICE.

INTERNAL anthrax can hardly be diagnosed with certainty during life. This can best be done after death by means of bacteriological examination. The symptoms of external anthrax (malignant pustule) are, during life, in most instances sufficiently characteristic to admit of hardly any doubt. In some cases, however, they may differ but slightly from those produced by erysipelas or other inflammatory processes. For complete proof it is desirable that in every case of anthrax the presence of the bacillus should be demonstrated under the microscope. In many cases, and especially in those reported from general hospitals, this is already done, but there remain a certain number of doubtful cases among persons employed in factories and workshops in which the medical practitioner may desire to obtain such confirmatory evidence or in which his own examination has failed to satisfy him that the case is one of anthrax. In such instances the Home Office now desires to afford facilities for verification of the diagnosis.

Arrangements have therefore been made in order to give facilities to medical practitioners for bacteriological examination in cases of suspected anthrax in which the infection is believed to have been contracted in a factory or workshop. The conditions are that the approval of the medical inspector of factories (Dr. T. M. Legge, Home Office) be obtained in each instance, that upon receipt of such approval the material be taken and packed by the practitioner without delay in accordance with certain directions appended and sent forthwith to the bacteriologist appointed for the purpose by the Home Office with a full statement of particulars in the prescribed form, of which a copy is appended. Where the practitioner considers this course advisable he should report the case (under s. 29, 1895, in the ordinary way) as probably due to anthrax contracted in a factory or workshop, adding that the diagnosis is doubtful and is not being followed up by bacteriological examination and that he is prepared to forward samples.

The following directions are laid down in the Memorandum from the Factory Department of the Home Office to be observed in the collection and despatch of material:—

External anthrax.—If excised the pustule is to be placed untreated, wrapped in a little cotton-wool or lint that has been boiled, in a small glass bottle.

If the pustule is not excised lymph from a vesicle or from the exudation, should be collected in sterile capillary vaccine tubes, the ends of which should then be sealed in a flame in the usual way.

Cover glass preparations, made by smearing with a small quantity of exudation and then dried without staining, may also be sent with advantage.

Internal or fatal external anthrax.—Portions of the lungs and spleen and the pustule itself (if the case be one of external anthrax) and samples of pleuritic, pericardial, or peritoneal fluid collected in tubes, as already described, should be sent.

The regulations of the General Post Office concerning the forwarding by post of deleterious liquids for medical examination or analysis must be observed. They will be found on p. 28 of the current Post Office Guide.

The approval of the medical inspector, whether in the form of letter or telegram, should be forwarded to the bacteriologist named therein (as his authority for proceeding with the examination), with the samples and the particulars of the case.

THE LANCET.

LONDON: SATURDAY, APRIL 7, 1900.

WE have good reason for believing that the further stages of the Midwives Bill will not be taken till after Whitsuntide. The circumstance may encourage the opponents of the Bill to hope that their turn has come, and that as the chapter of accidents has so far favoured the Bill it may in the future have an opposite effect. There is little foundation for the view, but if they wish to use every advantage which it suggests to them it behoves them to take good note of all the facts of the situation. They must realise the undoubted existence of a large Parliamentary feeling in favour of some such measure being passed. If they are of opinion that the faults of this Bill are gross and incapable of amendment it is their duty even after a triumphant second reading to place every obstacle in the way of its passing. Above all things they should define exactly their objections, and this we are glad to know is beginning to be done. Sheer opposition to the Bill simply because it is a Midwives Bill will ensure no attention, but opposition on grounds which can be clearly defined and justified will always command respect even if it is unsuccessful.

A considerable responsibility rests upon the General Medical Council and the probable delay in the further progress of the Bill should be satisfactory to that body, inasmuch as it may give them an opportunity of considering in session the changes in the Bill since its passage through the Standing Committee on Law. They will be able to judge how far the promoters of the Bill have conformed to the demand of the Privy Council that certain points should be conceded by them in deference to the strong views of the General Medical Council. The chief of these views may be summarised as follows:—

The unlicensed practice of midwifery for gain as well as the false use of titles should be made illegal.

The functions of the Midwives Board should include the framing of the regulations for the conduct and practice of midwives, especially for restricting such practice to normal cases.

The rules of the Midwives Board should be subject to the approval of the General Medical Council.

Provision should be made by Act of Parliament for reimbursing the General Medical Council for any expenditure which they may incur in performing their duties under the Act.

The conditions under which licences to midwives are granted should include satisfactory evidence of character as well as of training and experience in the conduct of natural labour and in the after-care of lying-in women and newly-born infants.

Provision should be made securing that the midwife in cases of abnormality shall seek qualified medical assistance.

Such are the main points insisted upon by the General Medical Council, and they have stated themselves opposed to the passing of any Bill which does not contain them. It is for the Council to say how far these points are safeguarded in the Bill now emerging from the Standing Committee on Law. We believe that the Midwives Committee of the General Medical Council are closely watching the progress of the measure with a view to obtaining the insertion of provisions in accordance with their views. But it will be a question for them and for the President of the General Medical Council to consider whether it would not be justifiable to antedate the meeting of the Council, so that the Government may have the benefit of the opinion of the entire Council before giving its last decision on the measure. We recognise that at several critical points Mr. HEYWOOD JOHNSTONE, representing the promoters of the Bill, has complied with the requirements of the General Medical Council. But there is necessity for care on the part of the Council, if not excuse for suspicion. One alteration of the Bill by the Standing Committee on Law is most unsatisfactory. We refer to the definition of the word "midwife." According to the definition the word midwife "means a woman who undertakes for reward to attend women in childbirth where no registered medical practitioner is engaged or employed." Where is the superiority of this definition over that of the General Medical Council defining the term "midwife" as meaning a woman who undertakes for gain to attend cases of natural labour and who is not registered under the Medical Acts? The new definition, proposed by Mr. HEYWOOD JOHNSTONE himself, seems to make the midwife's practice cover all cases of childbirth, normal or abnormal. It comes, too, at the end of the Bill instead of at the beginning, where it should be placed so as to dominate and guide the interpretation of the Bill. We miss, also, in the Bill in its present form any enactment — thought "imperative" by the General Medical Council—that the midwife on the occurrence of any irregularity shall seek medical assistance. The very essence of the conditions on which a medical body can consent to legislation licensing the midwife is that as far as possible in abnormal cases the attendance of the medical man shall be secured in addition to that of the midwife. The point that evidence of character shall be forthcoming in regard to all applicants for a licence, whether on the score of being in practice or on that of training, has been slurred. The Bill only requires such evidence in the case of those claiming to be licensed on the ground of being in practice at the time of the passing of the Act.

One other conspicuous omission from the Bill which should have the attention of the General Medical Council is that of any allusion to an important part of the midwife's duty—the after-care of the lying-in woman and child. Is this function now to cease and is the lying-in woman to be at the mercy of any untrained and dirty nurse? The General Medical Council did not think so in their communication to the Privy Council on the subject. The divorce of nursing duties from those of attendance at childbirth tends to revolutionise the whole conception of the midwife and also to complicate the financial problems of the working man. We have said enough to show that the General Medical Council should take steps to amend the Bill in several directions, and they might well insist somewhat upon deference being paid to

their views. For Parliament has been explicitly assured that the existing Bill has their approbation, while it appears that in many directions this is not the case. And if the Midwives Committee does not feel strong enough to act, it would be advisable to call the Council together.

THE council and members of the Chelsea Clinical Society are to be congratulated on the success of their recent annual clinical debate. The subject selected was "The Treatment of Rheumatism, with special reference to Prophylaxis and Cardiac Complications." We have published in THE LANCET full reports of three of the principal speeches and also lengthy abstracts of the others, so that our readers will be able to follow in detail the remarks of the speakers who took part in the debate.

It was unavoidable that in discussing the treatment of acute rheumatism some allusion should be made to the pathogeny of the disease. In the most modern text-books on medicine acute rheumatism is removed from the section on "general diseases" and placed amongst the specific fevers, Professor OSLER, for example, defining "rheumatic fever" as "an acute non-contagious fever, dependent upon an unknown infective agent and characterised by multiple arthritis and a marked tendency to inflammation of the fibrous tissues." Amongst the various definitions proposed by speakers at the Chelsea Clinical Society perhaps the most apt was the one suggested by Dr. ARCHIBALD GARROD: "a systemic disease with arthritic and cardiac manifestations." Dr. D. B. LEES'S contention that it is a "cardiac disease with arthritic complications" did not meet with such general acceptance. The microbic origin of the disease was frequently referred to although it was admitted that a pathogenic organism had not at present been demonstrated; yet the supposition that such exists forms a working hypothesis as was granted by some of the speakers, or, as Sir RICHARD DOUGLAS POWELL pithily expressed it, "the profession are certainly prepared to accept, if not to welcome, the arrival of a microbe as representative of the rheumatic disease provided that it be duly accredited to us by scientific investigation."

The main interest of the debate centred in the treatment of acute rheumatism by the salicylates. Dr. W. EWART, who opened the discussion, remarked that "this form of treatment is now a routine, hardly questioned from a critical standpoint by the prescriber." Such is probably the case amongst the vast majority of practitioners, but the remarks of Dr. DONALD HOOD and Dr. BURNEY YEO showed that doubt still existed in their minds. Both these speakers advocated a larger use of the "alkaline treatment," and probably a remark of Sir R. DOUGLAS POWELL may prove correct: "The effect of the discussion will be to rehabilitate alkalies in our good graces"; but concerning the opinions generally held as to the good effects of the salicylates there could be no doubt. Dr. ISAMBARD OWEN said that his observations had led him to believe in the truth of the hypothesis which Dr. T. J. MACLAGAN had put forward for a score of years that rheumatic fever was a specific disease produced by a specific germ and that the action of the salicyl compounds was specific. Dr. C. C. GIBBES maintained that sufficient importance had not been given to the nature of the salicylate compound prescribed, and he advocated that the natural form should be used instead of the artificial which was the British Pharmacopœia form; larger doses of the former could be given with less ill effects. This point is worthy of further investigation. The general opinion expressed was that the salicylates should be given in large and repeated doses at first, any indications of idiosyncrasies on the part of the patient being watched for, and after the pain and temperature had subsided the dose should be gradually decreased, but that the use of the drug should be maintained for some time. This is the method of practice usually adopted and with great success, but one reason why the salicylates have fallen somewhat into disrepute is owing to the relapses which not infrequently manifest themselves. It is very difficult to convince patients that when the active symptoms have abated the disease is not yet at an end. Consequently the patients get up and about too quickly and suffer the penalty of a relapse. It should be insisted that there should be absolute and prolonged rest after the subsidence of the symptoms. This method of treatment relieves the pain and lowers the temperature, but does not cure the rheumatic illness and it does not shorten the duration of that illness. Therefore a period of from four to six weeks is required before convalescence can be established, and should complications arise this time may be greatly prolonged. The statistics quoted by Sir R. DOUGLAS POWELL and procured from the records of the Middlesex Hospital supported the favourable claims made for salicylates.

The effects of the salicyl compounds on the heart were, as might be expected, discussed by nearly all the speakers. Dr. A. E. SANSOM laid especial stress on the slow evolution of the morbid process involved; remarking that whatever the nature of the primary agency, the resulting toxic effects must be very subtle in their early manifestations and very protracted in their course. More especially is this the case in the earlier years of life when diseases, undoubtedly of rheumatic form, occur unnoticed and unrecorded, and endocarditis with resulting valvulitis causing persistent and increasing lesions of the cardiac structures may ensue. He pointed out that there were so many difficulties in estimating the occurrence of heart lesions that this part of the subject was taken out of the range of statistical inquiry. Dr. T. J. MACLAGAN, who was the first in England to substitute salicin for the salicylates, doubted whether cardiac complications were more frequent with this form of treatment than before, but Dr. EWART and other speakers maintained that statistics proved that, at any rate, cardiac disease following on rheumatic fever has not been lessened by the introduction of the salicylates. It was evident that opinion in this matter was undecided and that further statistics are necessary before a definite conclusion can be arrived at. With regard to the treatment of rheumatic endocarditis it was agreed that digitalis did no good and that rest and continuance of the salicylates were the main points to be observed, although, as Dr. SANSOM pointed out, the imposition of complete rest may be overdone, and in some of the more chronic cases valuable help may be obtained from gradual muscular exercises and baths, but

considerable judgment and experience are necessary in their employment. Dr. R. CATON'S remarks on the application of small blisters along the course of the first, second, third, and fourth dorsal nerves excited considerable interest. He maintained that this treatment materially lessened the cardiac complications and he adduced remarkable evidence in favour of his views; doubtless other physicians will make a trial of his methods.

The members of the Chelsea Clinical Society have performed a good service in bringing about this discussion, for as one speaker observed "it is of a distinct value that we should at certain periods—the intervals being not too short—take stock of our therapeutic resources." The salicylates have now been in use for many years, and other methods of treating acute rheumatism have perhaps fallen somewhat into abeyance; therefore the opportunity afforded by the Chelsea Clinical Society of "taking stock of our therapeutical resources" with regard to rheumatism was very timely. The result on the whole has been to justify the confidence with which the salicylates have been so largely used.

IN an action that was tried last week a gentleman named SMITH and his wife recovered damages from the Inns of Court Hotel Company for injuries suffered by them from negligence of the hotel proprietors in supplying to them at the hotel poisonous and deleterious food on June 17th, 1899, in consequence whereof they became seriously ill. This case arose out of an incident which attracted considerable attention during last summer, a large number of persons, two of whom died, becoming ill after having partaken of the table d'hôte dinner provided by the hotel in question. The evidence on behalf of the plaintiffs at the trial was that of themselves and of medical men who had attended them or other patients, or to whom the viscera of the persons deceased had been submitted. It pointed to the presence of some irritant poison and proved the presence of ptomaines, but for obvious reasons the plaintiffs were unable to put in the witness-box anyone to prove that the hotel cooks were careless in examining and preparing the food provided. At the conclusion of the plaintiffs' case Sir EDWARD CLARKE, Q.C., pressed the judge to say that there was no evidence of negligence to go to the jury, submitting that the principle involved in the Latin phrase, "*res ipsa loquitur*," did not apply. Mr. Justice GRANTHAM did not accede to this view, basing his ruling apparently on the fact that a very large number of guests, about 40 out of 90, became ill, and holding that the jury might lawfully infer from this that the food must have been affected to such an extent that its condition should have been discovered. The question whether there was evidence before the jury may be raised again on appeal, but it is a purely legal one and will not be affected by anything that we may say here. It was, in any case, not surprising that as the case was allowed to go on the jury should have found a verdict for the plaintiffs. Members of the public naturally sympathise with their fellow-men who are, to a large extent, at the mercy of those who make a profit by catering for them in hotels and restaurants, while their customers have no means of inspecting and judging for themselves the precautions taken in order that the food provided may be wholesome. The jury, moreover, in considering the case of the Inns of Court Hotel had before them evidence adduced on behalf of the defendants as well as that of the plaintiffs, Sir EDWARD CLARKE having called witnesses on the judge refusing to stop the case after the plaintiff's witnesses only had been heard. The head cook of the hotel, while testifying to the general care exercised by him in supervising the preparing of the meals of the hotel, had been obliged to admit that on the date in question there were used for the dinner preserved apricots from tins which had been opened on the previous day. It is always safer to remove at once all food from tins that have been opened, and some prudent housewives in the case of tinned fruits throw away the liquid found with them and make a fresh syrup in which to serve them. The medical evidence went to show that the persons affected at the Inns of Court Hotel suffered from eating animal food in an improper condition rather than from metallic poisoning, but the jury may have thought this evidence inconclusive or may have considered that if in the matter of tinned fruits the care exercised was not of the highest order a similar state of affairs might have existed with regard to other comestibles as well. They had before them evidence that it was possible for ptomaines to be present to some extent and for their presence to be undetected even by those exercising considerable care. On the other hand, they also probably had before their minds the fact that it may be possible to discover that meat is in an improper condition while it is in the cooks' hands, and that it may yet reach the table in the form of soups or made dishes so disguised that the most careful consumer will detect nothing wrong. In short, if there was from a legal point of view evidence on which the jury might base their verdict their verdict was not surprising, and if it tends to cause extra care to be taken in hotels and restaurants its result may be beneficial. At the same time it cannot be said that conclusive proof was adduced as to what was wrong with the dinner in question or with what individual the responsibility lay, nor is it likely that such proof will often be forthcoming in such cases.

Annotations.

"Ne quid nimis.

THE ATTEMPT UPON THE LIFE OF THE PRINCE OF WALES.

ON Wednesday last, the day when Her Majesty the Queen was receiving in Ireland the most significant demonstration of personal affection that even she has received in the course of her extended and beneficent reign, the Heir Apparent to her throne was made the subject of a crazy attack which came near to cost him his life. "*Pauvre fou!*" the Prince of Wales is reported to have said of the unhappy lad who fired at him in the Brussels railway station, and poor madman of course the boy is; but the power for mischief of such maniacs is well-nigh immeasurable—a terrible fact that must be looked by all governments squarely in the face. Providence has willed that Sipido should not secure for himself the lasting infamy of Santo Caserio and Luccheni, but the escape of the Prince of Wales was an exceedingly narrow one and Europe must seek a remedy for

a state of things which makes such crimes feasible. For the possibility that they can take place is an insult to modern sociology. How can the resources of civilisation more conspicuously be found wanting than when, as in the sad deaths of President Carnot and the Empress of Austria, the measures taken for the protection of the meanest citizens from the pettiest acts of oppression fail to protect the ruling head from the assassin? The direction, however, in which to look for a remedy is rendered obscure because where a crime is apparently motiveless it is difficult to legislate for the removal of motive. Where the criminals are willing to lay down their lives in the accomplishment of their crimes it will always be difficult to check their furious designs. A more intelligent and better informed international detective system would do something—and we trust, in view of the congregation of notable persons who will shortly assemble in Paris, that measures to this end have already been arranged—but no police espionage can take cognisance of the vapourings of every crazy lad and prevent his crimes by a premature treatment of him as a criminal. One thing can certainly be done—drastic punishment can and should be meted out to the authors and publishers of seditious and inflammatory prints. Sipido was obviously inspired to kill the Prince of Wales by reading the vile personal attacks upon our Royal Family made by certain continental prints subsidised to misrepresent British foreign policy. The providers and purveyors of such poison as is contained in these journals, and in the printed propaganda of anarchistic rabble, should be treated with something of the severity that they desire to mete out to the makers of law and even to all law-abiding folk. Such penal measures are particularly indicated because it must be noted that most of the recent criminal anarchists have been quite young—many, like Sipido, mere boys. Bred in misery and nurtured in hopelessness they have their eyes persistently fixed upon their own sad plight to the exclusion of all softening or enlightening sentiment. To their unbalanced imaginations the wicked railings of the anarchist orator and writer against authority of whatever kind come as revelations of a future where they may play a larger part on the world's stage, and they plunge into crime, not by conviction, but drunk with maniacal vanity. We do not acquit these *pauvres fous* as irresponsible or take any mawkish view of their villanies; but it is the lying propagandist who is the head and front of the evil, and if his sinister business is made an impossible one the juvenile political desperado will cease to exist.

FOOD ADULTERATION AND THE MEANS TO PREVENT IT.

MUCH has been done to prevent as far as possible food adulteration and the selling of food stuffs "not of the nature, substance, and quality demanded," and several Acts have been passed to enable authorities to put down such frauds on the public. But the old adage that a coach and four can be driven through any Act of Parliament seems still to be applicable to the various enactments referred to. In many towns in Lancashire—such as Wigan, Bolton, Oldham, St. Helens, and Blackburn—there are numerous shops carrying on business under various styles signifying that they are limited liability concerns which are well known to the official inspectors as selling regularly and constantly to the public margarine for butter. All sorts of devices are adopted to prevent a conviction being obtained and the apathy of the magistracy in respect of the importance of preventing such imposition being practised on the public is in some cases lamentable. Every obstacle appears to be thrown in the inspector's way, every technical objection that can be found is allowed to influence the magistrates, although it is proved beyond doubt that a fraud has been perpetrated. A device adopted by these fraudulent dealers to prevent the penalties being imposed is frequently to change the name of the tenant of the shop. The inspector may be successful through his agent in getting a sample of butter which turns out to be margarine, and he has a name given to him as that of the tradesman. A few weeks later perhaps he does the same thing and then issues a summons against the tradesman, but only to find that although the same persons are in the shop the ownership is said to have changed. The proprietor of yesterday is only the manager of to-day, and the greatest technical difficulty arises in bringing home the guilt to the guilty, the magistrates being averse to fine more than one person for the same offence. The Wigan sanitary inspector has been conducting of late a series of prosecutions of tradesmen for selling margarine for butter, and although there has been no doubt about the analysis he has not obtained the amount of penalties which would help to stop the nefarious practice. What are fines of £10 and costs, £5 and costs, and 40*s.* and costs worth as deterrents considering the enormous profits realised? The defence has been that the salesman is not a responsible owner, but only a manager. Why a manager is not a dealer under the Margarine Act it is difficult to conceive, for there is no doubt that he knows of the fraud and lends himself thereto. The Food and Drugs Act of 1899, which was the result of a long sitting of a Select Committee and was intended to protect agricultural products, apparently does not help inspectors, and until the "shop" or "place" of business and the manager and servants are included as dealers there is little hope of fraud being stopped. To one more point we must make reference: it is very important. Any officer interfered with in the discharge of his duties should be protected and an assault upon him, although no grievous bodily harm may have been done or intended, should be so punished that the offence will not be repeated by others. A payment of costs is not an adequate penalty and does not afford encouragement to a public officer to discharge his duties, especially when it is remembered that if he takes the law into his own hands he runs the risk of severe censure both from the magistrate and from the authority employing him. It is strange that despite our great advance in sanitary matters we as a nation should be so far behind when it comes to protecting the food-supply of the people. In Denmark offences of this description are punished by imprisonment, and such a fraud as selling margarine for butter is seldom heard of. The offence is practically a robbery, and in Denmark is treated as such.

THE MIDWIVES PROBLEM IN NEW YORK.

IT is a coincidence that the problem of legislating for midwives should press for solution in the United States as it does here. Needless to say, it gives rise to almost exactly the same differences of opinion. In the *Medical Record* of March 3rd there is an editorial account of a Bill for the Regulation of the Practice of Midwifery and Provision for the Licensing of Midwives in New York City that will repay reading just now. The editor says that many physicians think that the licensing of midwives would be by no means a step in the right direction, but that a parturient woman is likely to receive more beneficial treatment from a skilled medical practitioner than from a midwife. He takes objection to the Bill that he is discussing for some very good reasons. The Board that is to examine midwives is to be appointed by the Mayor of New York. It would be as reasonable to ask his worship to preach a sermon or to take the first violin in an orchestral concert. Then the examiners are to serve without remuneration. Surel it is the climax of demoralisation in regard to

gratuitous work to create an inferior order of practitioners and to give them a start by requiring the medical profession whose work they are in a measure to take away to put an *imprimatur* upon them. We trust that the medical profession in the United States will give early notice that its coöperation is not to be obtained so cheaply. A third objection found to the Bill by the editor is its limited application. It is only to affect the city of New York, whereas the Medical Society of the State of New York has always strongly opposed Bills to create examining boards for midwives in separate cities and counties and has insisted that if midwives are to be licensed the practice should include the whole State. Our contemporary goes on to repeat that the general tendency of medical opinion is against such Bills. "There has been but little convincing testimony that the Midwives Bill is called for." While admitting that the services of a midwife who has undergone an examination testifying that she possesses some knowledge and experience would be preferable to those of one who has been put to no such test, the writer observes that it must be obvious that even a licensed midwife cannot be expected to grapple with all the complications which may occur. On these grounds he argues that the public should be educated to realise the advantage of medical attendance as distinguished from that of ignorant midwives who would in the natural course of things pass away. If all this be so perhaps the *Medical Record* is a little inconsistent in regretting that the Bill does not include the State, as well as the city, of New York, for surely, if such Bills are wrong, the more limited their scope the better.

SANITARY WORK IN THE PORT OF LONDON.

THE recently published report of Dr. William Collingridge, medical officer of health of the Port of London, shows that during the half year ended Dec. 31st, 1899, a total number of 16,384 vessels were inspected by the sanitary officers in the docks and in the river. The majority of these vessels were of British nationality—namely, 81·52 per cent., Swedish and Norwegian coming next as usual with 8·6 per cent.; according to the table which gives these particulars only one American vessel was inspected during the half year. There were 34 sick seamen referred to hospital over and above the cases of infectious disease dealt with under the Public Health Act. In the course of the medical inspection of arrivals at the port, 5236 vessels were visited by the medical officers stationed at Gravesend, this involving the medical examination of 5412 passengers and crews to the number of 19,916. At Sheerness 135 vessels from foreign ports were visited by the medical officer. The result of such medical inspection was the discovery and removal to hospital of two cases of plague, six of smallpox, one of scarlet fever, 15 of enteric fever, two of erysipelas, 22 of measles, and two of other diseases. The two cases of plague were reported on board the s.s. *Eastbourne* from Alexandria on July 25th; they were isolated in the port sanitary hospital, all the usual precautions being taken with regard to the vessel. The patients recovered, but no further details are given regarding them. The system of medical inspection at Gravesend and Sheerness obviates the necessity for any extraordinary measures being taken with respect to plague. All the passengers and crews of all vessels arriving from any port either known or suspected to be infected are mustered for inspection, and the addresses to which they are about to proceed are given. The owners of such vessels are also asked to arrange for the capture and destruction, so far as possible, of all rats found on board. Dr. Collingridge devotes a paragraph to the space allotted to Lascars on board ship, and in referring to the great difference between the requirements of the Indian and the British Merchant Shipping Acts he mentions that it has already been strongly contended by the Port of London sanitary authority that the present legal minimum of 72 cubic feet is insufficient. At the infectious hospital of the authority 22 cases were admitted during the half year and the same number were discharged recovered, the patients being detained for an average period of 18 days. Mention is made of a case in which rags forming a cargo arrived from Egypt "were found to be in a filthy condition, containing fæcal matter, blood, and swarming with animal life." These rags were disinfected by superheated steam before being landed.

WISE BENEVOLENCE.

A FREE convalescent home has lately been built at Castle Hill, Bletchingley, by Mr. Partridge to the memory of his daughter. It is intended for the benefit of patients of both sexes of the better class but in poor circumstances, primarily for those recovering from acute rheumatism; but other cases are occasionally admitted. The Home is absolutely free and is under the charge of a trained nurse. The house, which is on sandy soil, faces south and looks across the Weald of Sussex away to the Isle of Wight. It is an exceedingly favourable site—high, breezy, dry, and warm—and is admirably suited for the kind of patients whom it is intended to benefit. The appointments are hygienic and yet artistic; there are a good piano, a nice collection of books, games, and every home comfort. Patients are admitted from hospitals, or direct from the physician in charge of the case. All applications should be made to the Matron, Convalescent Home, Castle Hill, Bletchingley, Surrey.

THERAPEUTIC USES OF OREXIN.

DR. J. W. SMITHWICK[1] found orexin tannate of special benefit in the dyspepsias of functional character or in those occurring during convalescence from the acute specific fevers. In his own individual case, the trouble being functional dyspepsia with a disagreeable saline taste in the mouth in the morning and with a tendency to constipation, orexin proved more efficacious than bitter tonics or the combination of pepsin with hydrochloric acid. In 18 cases it was found very effective as a curative agent, and these cases were as follows: functional gastric atony, five cases; anæmia, three; tuberculosis, four; dyspepsia of convalescence, six. "In all cases the body-weight increased, and this was especially noticeable in phthisical patients." The length of time required was variable, being three weeks or longer for simple atonic dyspepsia, from four to six weeks for anæmic dyspepsia, and six weeks or more for phthisical patients. The following illustrative clinical cases bear out various interesting features in the treatment. Case 1. A man, aged 34 years, had been subject to atonic dyspepsia for one and a half years. His epigastrium was sore and tender to pressure and the bowels were inclined to constipation. During this period he lost 33 pounds in weight. After unsuccessful treatment with nux vomica and hydrochloric acid he was put on orexin tannate in doses of six grains taken one hour before meals. In two days there was improvement of appetite and of digestive power. The bowels became regular, the assimilative powers were much improved, and his weight began to increase. He progressed satisfactorily and was cured, his weight having increased by 18 pounds. Case 2 was that of a young woman, aged 17 years, who was anæmic and was subject to malaria. Appetite and digestion were exceedingly poor and she had lost during the three months of her present illness about 30 pounds in weight. She was pale, weak, and had a sallow complexion. Orexin tannate was given in six-grain doses one hour before meals and two drops of Fowler's solution were given half an hour after meals. Within a week she began

[1] Merck's Archives, March, 1900.

visibly to improve and at the end of the fourth week she had considerably regained her lost weight and was feeling quite well. The other cases recorded also show the beneficial effects of the drug in a tuberculous patient and in one convalescing from typhoid fever, and the results obtained in the total of cases are highly encouraging.

THE PREVENTION OF CRUELTY TO CHILDREN.

ON April 1st the National Society for the Prevention of Cruelty to Children entered the twelfth year of its existence. Since the date of its birth the area covered by its useful activity has greatly increased. The number of cases investigated annually has risen in proportion from 737 to 28,165. Its inspectors, originally 10, are now 150 in number, a total far from excessive in relation to the work which they have to do. 25 "centres" occupied in its first year have been augmented by 750. Its annual income of £3000 has become £50,000. These facts in themselves are instructive of the necessity which called the society into being; enforced as they are by well-authenticated reports from all parts of the country of cases in which the law has been called upon to secure the most elemental rights of humanity for unhappy children they cannot fail to convince the judgment of every candid person. We are aware that there are those in every district who hold that a parent is the natural and supreme authority in his own household. We admit that this is the right arrangement under natural and wholesome conditions. We deny it entirely in the too frequent cases where sloth, vice, or self-indulgence has transformed the parents into despots and the children into helpless victims. The society, we understand, is desirous of considerably extending its operations during the coming year. For this purpose it is estimated that a special fund of £5000 will be required, and this in the face of a deficit during the past year of not less than £6000. The costly emergencies created by the South African war and the Indian famine have already imposed a heavy tax upon public generosity and will entail yet further expenditure. Notwithstanding those more distant but freely recognised obligations we are not without hope that charity will be equal to the claims which are made upon her at home. Heavy though our national expense has been we cannot overlook the fact so clearly proved by the Exchequer returns that the past financial year has been one of unexampled commercial prosperity.

THE CONTRACTOR AND THE VOLUNTEERS.

QUESTIONS and answers in the House of Commons have recently shown the country that the army contractor of the type associated with so many hideous scandals in the past is dying hard and that if his race is to some extent disappearing it is at all events not yet extinct. Some of these questions have referred to boots supplied to the 1st Volunteer Battalion of the Worcestershire Regiment. The inspection of feet and of foot-gear is not practised in our army in times of peace with the method and with the same sense of its importance as is the case in continental armies such as that of Germany, but in times of war it is at least recognised by everyone that it is useless to expect men to march on stony ground in any boots that are not of good quality, and that if the contract specifies boots of good quality and allows a fair price for them such boots should be supplied. In the case of the Worcestershire Volunteers the boots seem to have been ordered by those connected with the corps itself and not by the contract department of the War Office, which was not even consulted, and in the result the boots, or a large number of them, had to be condemned as unfit for their purpose. A statement to this effect having been made by Mr. Powell Williams in the House of Commons the firm of contractors named, Messrs. Samuel Brothers, of Ludgate-hill, have addressed to the *Times* a letter of, as it seems to us, inefficient excuses. They state that not being manufacturers of army boots they had to purchase what they required and that they stipulated for good boots. They also suggest that their shortcomings were due to want of technical knowledge, and state that the War Office, with all its technical knowledge and resources, appears to have fallen into similar difficulties. This obviously does not absolve the firm in question from their responsibility or from any part of it. If a man undertakes to supply sound food or clothing to his fellow-man for an adequate price, or even for an inadequate one, he is bound by his contract to do so and cannot shelter himself behind the plea that he had to buy the goods from a third party and was not sufficiently skilful to be able to judge of their quality. His purchaser might have believed himself to be dealing with the manufacturer, or he might have employed a middleman for the express purpose of availing himself of his skill and experience. In any case a volunteer colonel dealing with large contractors may be excused if he trusts to their judgment, where their reputation and trade are at stake, although it may be thought that but for the haste with which many volunteer companies have been equipped for active service a system more likely to ensure good results might have been employed.

THE MEDICAL FOLK LORE OF SHAMROCK.

THE order of the Queen that her Irish regiments shall wear the green on St. Patrick's Day in recognition of their bravery in the South African war has made the botany of the shamrock a topical question. There is some difference of opinion as to what really was the plant by the aid of which St. Patrick demonstrated the doctrine of the Trinity, and an ingenious correspondent suggests to us that medical folk lore might come to the aid of accurate science, as a plant with such a sacred history would certainly be endowed by the Celts with high therapeutic virtues. Medical folk lore, alas, has nothing conclusive to say. Two botanical tribes claim the honour of possessing the true shamrock—viz., the oxalideæ and the trefoils—and to both are ascribed by popular superstition medicinal properties. The *Oxalis acetosella*, which is said by one school of observers to be the actual plant with which St. Patrick's name is so intimately associated, was at one time used in the making of a cooling drink for use in fevers, and had a reputation as a cardiac sedative. On the other hand, clover, which most English people believe to be the sub-order of leguminosæ including shamrock, is credited with the power of curing "scrofulous" sores and whooping-cough. The name "shamrock" is said to be derived from *seamrog*, the diminutive of *seamar*, which means a trefoil, and Gerarde in his "Herbal" says that the Irish call the common meadow trefoil "shamrocks." But George Bentham, although admitting that *Trifolium repens* and shamrock in the popular mind are identical, says that shamrock was originally believed to be the *Oxalis acetosella*.

PATHOLOGY AT THE SCOTTISH ASYLUMS.

THE third annual report of the pathologist for the Scottish asylums covers the year 1899 and has been just issued. It points out that the Pathological Laboratory in Edinburgh has been utilised for giving a course of instruction to nine gentlemen (six being medical officers of asylums and three being medical men unconnected with the asylum service) on the methods of pathological technique. All the more important home and foreign neurological journals are accessible at the library of this institution, which also concerns itself with the preparation and sale (or loan) of "demonstration sets of microscopic

preparations" which have been largely in request. Dr. W. Ford Robertson, the pathologist, states that "it has been provisionally arranged that the pathology of the acute insanities shall be made the subject of special investigation in the laboratory ..... and this will necessitate researches of a histological, bacteriological, and chemical nature, and will have to extend over several years. ..... Recent discoveries in the domain of the physiology and pathology of the nervous system have opened up for further research a vast and highly promising field which now only awaits the coming of workers to survey it. ..... Such researches are exceedingly laborious and require for their successful prosecution, not only costly apparatus and materials, but also a special training which the ordinary medical curriculum does not and cannot be expected to provide." This deficiency it is proposed to supply at the laboratory. It is pointed out that Scotland stands a long way behind at least five other countries—England, the United States, France, Germany, and Italy—in the provision for such work and investigation. Of the 24 Scottish asylums 17 have thus far united in support of the present institution which is one that deserves all aid and encouragement.

THE WATER BILLS OF THE LONDON COUNTY COUNCIL.

THE rejection of the Bill introduced by the London County Council for the purchase of the metropolitan water companies' undertakings was a foregone conclusion. Every unprejudiced person who studied the evidence given before Lord Llandaff's Commission must, even if unwillingly, have been led to see that a severance of the present undertakings between the county of London and the outlying districts must necessarily have led to an enormous outlay and to practical inconveniences for which no theoretical idea of the beatitude of a "municipalised" supply could have compensated. Mr. Chaplin by opposing the Bill which was drawn up after careful consideration by the advisers of the London County Council has made himself and the Cabinet of which he is a member responsible for the introduction of a Government Bill to deal with the difficult problem presented by the water-supply of London and the surrounding districts. A measure of such importance can only properly be introduced by a responsible Government and in this connexion the only matter for regret is that it has been so long delayed. The London County Council Bill for the provision of water from Wales was withdrawn and we commend the advisers of the Council for having at length taken this course. A scheme for bringing an ample supply of pure water from Wales has much to commend it. It is, however, one which could not be rightly entrusted to such a body as the London County Council. But the merits of the scheme itself are not lessened because it has received the commendation of that body, and pure water from uncontaminated sources is a thing which is desired by all sensible people.

VERIFICATION OF DOUBTFUL CASES OF ANTHRAX.

IN another column we print a memorandum from the Factory Department of the Home Office detailing the arrangements that have been made in order to give facilities to medical practitioners for bacteriological examination in cases of suspected anthrax in which the infection is believed to have been contracted in a factory or workshop. The conditions to which these arrangements are subject cannot be said to be severe and are not likely to check the desire on the part of the practitioner that the doubtful cases should be fully investigated. Approval has first to be obtained in each instance from the Medical Inspector of Factories (Dr. T. M. Legge, Home Office). As the bacteriological examination will only be made in cases which are believed to have been contracted in a factory or workshop it is only just that the medical officer in charge of that department should be fully cognisant of each case as it arises, and it is a good provision that a certificate must first be obtained from him before the material is sent to the laboratories. Increasing facilities are being given to practitioners to obtain bacteriological examinations in cases in which the diagnosis of infectious and contagious disease is in doubt. In spite of the outcries of misinformed and over-zealous individuals a well-equipped bacteriological laboratory is now attached to every hospital the managing board of which has the welfare of the patients and of the community at large as its first duty. Many of the infectious diseases can often only be definitely diagnosed by means of a bacteriological examination, and to give way on this point owing to the activity of a certain section of the public—an activity founded on ignorance and misplaced sentimentality—would indeed be deplorable. A positive diagnosis is essential in such diseases and the memorandum now under consideration is a further proof of the desire of the Home Office to aid in medical matters which especially affect the working-classes.

GASEOUS ABSCESSES FOLLOWING HYPODERMIC INJECTIONS.

AT the meeting of the Société Médicale des Hôpitaux of Paris on Feb. 23rd MM. Soupault and Guillemot related two cases of a very rare condition—gaseous abscesses following hypodermic injections and running a benign course. In the first case the patient was a very emaciated man suffering from advanced phthisis. Into the postero-external part of the left thigh 40 cubic centimetres of a 5 per cent. solution of chloride of sodium were injected. At the time of injection the patient complained of acute pain which gradually increased. On the following day the whole thigh was painful and tender and active movements were much impeded. The skin was diffusely red and slightly œdematous. At the position of the prick the tint was darker and there was a painful nodosity of the size of a franc. Under water dressings the pain declined. On the ninth day the whole limb was found to be enlarged. In the lower third of the thigh, over an area of the size of the palm, the skin was tense as if inflated, smooth and glossy, and of normal colour except in the position of the prick, where there was diffuse redness. The swelling was tympanitic and everywhere yielded a gurgling sound. The general condition of the patient did not appear to be affected. Exploratory puncture gave exit to a reddish, fœtid, purulent liquid, and gas with the odour of sulphuretted hydrogen escaped. On the nineteenth day 300 cubic centimetres of thick chocolate-coloured pus were removed with Potain's aspirator. It separated into two layers—a lower formed of discrete particles and an upper consisting of an oily liquid of the consistence of syrup. A large quantity of gas escaped from the abscess cavity smelling strongly of sulphuretted hydrogen. A free incision had to be made before healing could be obtained, and that took place slowly. Stained preparations of the pus showed always only one form of microbe—a large bacillus which had all the characters of that found by Veillon and Zuber in various fœtid and gangrenous abscesses and termed by them "bacillus perfringens."[1] Aerobic cultures remained absolutely sterile; anaerobic, on the contrary, gave rise to numerous colonies of a gas-producing bacillus. An inoculated guinea-pig died in 36 hours with an extensive detachment of the subcutaneous tissue and a cavity filled with a sanguineous serum mixed with gas. The second case occurred in a child who had severe typhoid fever. Following a subcutaneous injection of saline solution into the skin of the

[1] Archives de Médecine Experimentale, July, 1898.

abdomen a red, painful, crepitating, gaseous abscess appeared. It contained viscid, inodorous pus and the bacillus perfringens. In the standard works MM. Soupault and Guillemot could not find any similar cases, but they have collected from different sources the following observations. After the intramuscular injection of ether a huge gaseous abscess formed.[2] Two other cases in which ether was injected are recorded by Lautaret.[3] Frankel has published two cases.[4] In one ether and camphorated oil were injected successively and in the other morphine. He found a microbe in both cases which he termed the "bacillus phlegmones emphyematosus" and which seems to be identical with the bacillus perfringens described above. Numerous other microbes produce gas in living tissues. The bacillus perfringens has been found frequently in the pus of appendicitis. It has also been found in cases of fœtid otorrhœa, fœtid pleurisy, and pulmonary gangrene. In almost all the cases of gaseous abscesses the patients were affected with grave disease—phthisis, typhoid fever, pyloric cancer, cholera, &c. Cachexia seems therefore to be a predisposing cause. The liquids injected have almost all been irritant: possibly this property also plays a part, favouring the development of the bacillus in injured tissues. Whether the bacillus is inoculated by the hypodermic needle in consequence of neglect of antiseptic precautions or whether it reaches the skin by the circulation from some intestinal or other lesion has not been determined.

THE EYESIGHT OF BOARD SCHOOL CHILDREN.

AT the annual general meeting of the supporters of the Royal Eye Hospital, Southwark, held on March 28th, an energetic protest was made against a line of policy recently pursued by the London School Board. Mr. Malcolm McHardy, the senior surgeon, who occupied the chair, complained that the system in question had threatened to disorganise the entire out-patient work of the hospital. It was very important that the eyes of children subjected to the strain of compulsory education should be systematically examined as to their powers of vision, and he considered that the London School Board ought to have from the first arranged to ascertain the fitness of the children's eyes and eyesight for the tasks imposed upon them. Compulsory education of the young carried on without regard to the fitness of the children's eyesight must cause deterioration of the eyesight and of the eyes of the young in a ratio increasing with both the advancing age and the educational standard of the pupils. The truth of this proposition was so obvious that last year the board directed that the eyesight of the pupils should be examined by the teachers, who, when the visual power appeared to be below a given standard, should report on the subject to the child's parents on a printed form, recommending that skilled advice concerning the child's eyes should be secured immediately, and suggesting that for the purpose the child should be taken to an ophthalmic hospital or to the ophthalmic department of a general hospital, and the addresses and hours for attendance thereat were tabulated on the paper. The consequence of this was that during the Christmas holidays, without notice to the ophthalmic surgeons concerned, thousands of children with radically defective eyesight were brought to the various ophthalmic out-patient charities of the metropolis. The out-patient machinery and staff, thus inundated, were overwhelmed, and the difficulties of the position were increased by the shortness of the daylight at that season of the year. At the Royal Eye Hospital alone, in one week, upwards of 800 such children with defective sight thus referred from the board schools were counted among the new attendances. By prolonging the hours for the attendance of the staff until as late as 7 P.M., 8 P.M., and even 9 P.M., and by abstaining from all attempts at clinical instruction, it was possible to see every new case, but Mr. McHardy maintained that this very important work should be done systematically by specially trained examiners, not at the expense of charity but at the cost of the London School Board, and that the ophthalmic out-patient departments of the hospitals should offer the consultation advantages which might be desirable for a selected minority of cases.

[2] Cayla: Thèse de Bucquet, 1883.
[3] Thèse de Paris, 1886.
[4] Ueber Gas Iphlegmonen, Hamburg und Leipzig, 1893.

PLAGUE IN THE ARGENTINE REPUBLIC.

LETTERS received from Buenos Ayres show that since the end of January the plague has made but feeble progress in that city and in Rosario and has not manifested itself in any fresh place. The extreme measures taken by the Government,[1] which included the isolation of an important city like Rosario and many vexatious limitations of railway and river traffic, have been and are still being severely criticised. The contention is that while the few cases which have occurred are undoubtedly of the nature of bubonic plague, inasmuch as the specific bacillus has been identified in them, in no way can these few sporadic cases be described as "epidemic," enough time having now elapsed to prove that the bacilli have not found favourable soil for development. Official circles now tacitly admit that they were too "precipitate" in proclaiming a state of "true Oriental epidemic plague."

TEMPERAMENT AND TENDENCY TO CRIME.

IN a recent issue of the *Archives d'Anthropologie Criminelle* Dr. J. Marty publishes an important communication on the above subject which, based as it is on extensive and careful observations and supplemented by statistical tables, throws an interesting light on the subject of temperament and the tendency to crime and moral delinquency. The diagnosis of temperaments is a difficult and delicate affair. Dr. Marty has brought together, after long observation, the records of several delinquents whom he classifies as belonging to the sanguine temperament, of an equal number of the lymphatic temperament, of 119 of the nervous and 20 of the bilious temperament, of 200 of the lymphatic-sanguine, 171 of the lymphatic-nervous, and 200 of the nervous temperaments. The conclusions which he arrives at are as follows. As regards precocity in crime the "lymphatics" belong to the first rank, while far behind and in the last rank are the "lymphatic-nervous." The "lymphatics" occupy the first rank in the crime of vagrancy, while for crimes and assaults against persons those of the sanguine temperament take first place. For crimes without violence against morals and propriety the "lymphatic-nervous" slightly surpass those of sanguine temperament. For habits and vices of idleness the pure lymphatics take the palm. Apart from crimes due to violent impulses such as characterise the sanguine other subdivisions of crime are hard to correlate with the other temperaments. "Police crimes against the safety of railways" were all met with among "lymphatics," but, as Dr. Marty points out, it is not legitimate to press such coincidences too far, as the various factors are highly complex and the nexus of the association between temperament and the specific nature of crime is not always demonstrable. Among soldiers Dr. Marty has found that the sanguine are the least criminal and that the nervous are the most given to "crimes of violence against persons or property" and to drunkenness. All these distinctions are fairly consistent and constant and imply correlations between temperament and tendency to crime.

[1] THE LANCET, March 10th, 1900, p. 721.

SOME interest attaches to a Government notice recently published at the office of the chief secretary to the British South Africa Company at Salisbury. It runs as follows: "His Honour the Administrator has, with the consent of his Excellency the High Commissioner, approved of the appointment of Mr. Lionel Smith as Justice of the Peace for the district of Buluwayo." The case of Mr. Lionel Smith will be remembered by all readers of THE LANCET, as we had occasion several times to narrate it at some length.[1] We congratulate him upon the success that has attended him in his new career.

WE are requested by the secretary to the Royal Commission for the Paris Exhibition to state that a Congress on Dermatology and Syphilography will be held in Paris from August 2nd to 9th. The secretary of the Congress is Dr. Thibierge, 7, rue de Surène.

A GOVERNOR of St. Thomas's Hospital, who remains anonymous, has contributed £1000 towards the expenditure incurred in re-organising the hospital to meet the wants of an increasing number of patients.

A NEW infirmary was opened at Hendon by Mr. Thomas Prescott, M.R.C.S. Eng., L.R.C.P. Lond., chairman of the board of managers of the Central London Sick Asylum District, on March 29th.

ON Saturday morning last, March 31st, H.R.H. the Duchess of York gave birth to a son. Her Royal Highness and the infant Prince are both doing well according to the daily bulletins.

AT a court of governors of the Seamen's Hospital Society (*Dreadnought* Hospital) Dr. Robert Barnes, consulting physician, was unanimously elected a Vice-President of the corporation.

A TELEGRAM sent by the Governor of Mauritius to the Colonial Office states that during the week ending March 29th there were six fresh cases of bubonic plague with five deaths.

THE *Times* announces, through Reuter's Agency, that 70 cases of plague have occurred at Sydney and 20 deaths. The quarantine area has been extended.

LORD MANSFIELD has accepted the office of chairman of the committee of the City Orthopædic Hospital in the place of the Earl of Aberdeen, resigned.

DR. ST. GEORGE MIVART, F.R.S., Ph.D., the well-known zoologist, died somewhat suddenly at his London residence on Sunday last, April 1st.

ANNUAL REPORT OF THE REGISTRAR-GENERAL.

I.

THE sixty-first annual report of the Registrar-General has just been issued. Like its many recent predecessors the report for 1898 is a well-arranged and carefully written document; it is full of accurate statistical information which is of interest, not to the official sanitarian alone, but to every practising member of our profession. The general mortality of England and Wales in 1898 was 17·6 per 1000 of the population at all ages, and only exceeded by a few tenths per 1000 the lowest rate hitherto recorded. At ages between five years and 20 years the death-rates of both sexes were lower than in any previous year since registration began, whilst amongst children under five years of age and amongst adults above 20 years of age the rates were rather higher than the average.

If the average mortality in the last three years be compared with the rates in previous years it will be found that from the year 1871 onwards there has been a continuous reduction among both males and females at the earlier ages—namely, the most valuable period of life—any increase that has occurred in recent years being limited mainly to the higher ages. Both in 1898 and in the preceding year there was a decided increase in zymotic mortality as compared with the average. This appears to have been due mainly to increased fatality from influenza and diarrhœa, especially the latter disease, the hot and dry summers of these two years having been exceptionally fatal to infants, who succumbed to diarrhœa in large numbers. The mortality from scarlet fever in 1898 was the lowest hitherto experienced in England, being below the average rate by as much as 42 per cent. It must not, however, be inferred from this that scarlet fever has been less prevalent than usual, for the returns of the Asylums Board show that scarlet fever has presented an exceptionally mild type for the last few years; the fall in the scarlet fever death-rate is thus readily accounted for. Enteric fever was more fatal than usual in 1898. Prior to the year 1888 the mortality from this disease had only once fallen below 180 per 1,000,000 living. During the 10 years ending with 1897 it only once exceeded this figure, but in the year 1898 the rate was equal to 182, or 10 per 1,000,000 above the average. The three Yorkshire Ridings, together with Lancashire and Norfolk, appear to have suffered more severely than other English counties from this disease. The excessive mortality in Norfolk was due to local prevalence in the districts of Norwich, Yarmouth, and King's Lynn. This had also been the case in 1897 and in several previous years. In Yorkshire a large and continuous area was notably affected during 1898; it consisted of the cities of Sheffield, Leeds, and Bradford, together with the registration districts of Rotherham, Doncaster, Barnsley, Wakefield, Dewsbury, North Brierley, Halifax, Todmorden, and Keighley. The subject of diphtheria prevalence has become an engrossing one in recent years, especially in relation to school attendance. In a recent article we dealt at some length with Mr. Shirley Murphy's report on diphtheria in London, giving special prominence to his views with respect to the effect of antitoxin in reducing the fatality of the disease. In the report before us there is contained in addition a carefully prepared essay on the Distribution of Diphtheria in Extra-metropolitan England, in which the increase of mortality in various localities is traced from the year 1861 down to the present time. The deaths from diphtheria in the year 1898 amounted to 7660, more than nine-tenths of these occurring among children below the age of five years. The mortality among males was equal to 245 per 1,000,000 and among females to 243 per 1,000,000. There were 17 counties which showed excessive diphtheria mortality in the year under notice, as compared with the average in the country generally, the counties with the highest rates being South Wales, Kent, Rutland, Essex, and London. In South Wales there were five registration districts in which diphtheria mortality averaged 900 per 1,000,000, as compared with 240, the mean rate in England and Wales. The high average death-rate in Kent was largely due to excessive diphtheria prevalence in the three contiguous districts of Dartford, Strood, and Medway, and in the district of Tunbridge. These four districts contain only one-third of the population of the entire country, but they contributed almost two-thirds of the total number of deaths and experienced a mortality from diphtheria which was almost four times as high as that of England and Wales generally. In other parts of Kent, speaking generally, diphtheria was less fatal in the Eastern than in the Western districts. In addition to the deaths definitely ascribed to diphtheria in 1898 more than 2500 deaths were referred either to croup or to laryngitis. It is safe to assume that the greater part of the deaths referred to croup, as well as some of those referred to laryngitis or to ill-defined sore throat, were really due to diphtheria. At the present day the order of distribution of fatal diphtheria in various localities is nearly the same, whether diphtheria alone or that disease and croup together be taken as the criterion. This is especially the case in London where the mortality from croup barely exceeds 3 per cent. of that from diphtheria,

[1] Vide THE LANCET, Dec. 21st, 1895, p. 1592.

but when the present fatality from diphtheria is compared with that of earlier years considerable correction is required. In the 20 years 1861–80 the deaths ascribed to croup were more numerous by one-third part than those ascribed to diphtheria, but from 1881 onwards the proportion has grown less and less until in 1898 the deaths referred to croup did not exceed one-ninth part of those referred to diphtheria.

In the year under notice the mortality from diarrhœal diseases was unusually high—in fact, higher than it had been since the year 1884. In addition to the deaths specifically ascribed to diarrhœa in 1898 a very large number were referred to enteritis. There are good grounds for the opinion that many of the latter would have been more correctly returned as from epidemic diarrhœa, and the fact that the age distribution of the two diseases closely corresponds seems to support this view. In certifying deaths of this nature the habit of discarding the commonplace term "diarrhœa" in favour of less familiar synonyms has become very general amongst medical men in recent years. The terms "gastro-enteritis" and "gastric catarrh," for example, are now used very commonly in place of diarrhœa, and inasmuch as deaths so certified are classed among affections of the digestive system they do not appear amongst zymotics at all. Consequently, as has recently been urged in these columns, the statistics concerning a large and fatal group of epidemic diseases, which are exceptionally important to medical officers of health, are in danger of becoming vitiated to such an extent as to be worthless for preventive purposes. In certain parts of England the deaths of infants attributed to enteritis and gastro-enteritis are, in the aggregate, more numerous than those attributed to diarrhœa. In view of the foregoing considerations the recent pronouncement of the Royal College of Physicians of London on this subject may be regarded as particularly opportune. In a recent number of THE LANCET we mentioned that the Incorporated Society of Medical Officers of Health had appealed to the Royal College of Physicians of London for their guidance concerning the certification of deaths from diarrhœal diseases, and the College has now expressed an opinion which, if loyally adopted by medical men generally, will greatly improve the national records of mortality from this ailment. The College has agreed to authorise the use of the term "epidemic enteritis" (or, if preferred by the practitioner "zymotic enteritis") as a synonym for epidemic diarrhœa. The College has further decided to urge upon practitioners the complete disuse of such terms as "gastro-enteritis," "muco-enteritis," or "gastric catarrh" as synonyms of epidemic diarrhœa. Passing now from the zymotic to the constitutional class of diseases we note that the decrease in mortality from tuberculous diseases and the concomitant increase in that from cancer, to which we have referred in previous years, has been steadily maintained in the year under present notice. In that year alone more than 25,000 deaths, or 802 in each 1,000,000 of the population, have been caused by malignant disease in one or other of its forms. A special feature in the last two reports has been the insertion of a table showing the various kinds of malignant disease which have proved fatal during these years respectively. In that table the various organs or parts of the body attacked by the disease are shown, as well as the relative frequency of fatal cases among males and females. The table shows, what is matter of common knowledge among medical men, that cancer is in the aggregate more prevalent among women than among men, but it would appear that the excess is entirely due to the fact that the female generative and mammary organs are exceptionally liable to attack. For when the deaths from malignant affections of the ovaries, womb, and breast are subtracted from the total deaths of females from malignant disease the remaining deaths give a mortality for females considerably lower than the rate for males.

(To be continued.)

GLASGOW INTERNATIONAL EXHIBITION, 1901.—It is officially notified that all applications for space at the Glasgow International Exhibition which is to be opened in May, 1901, must be lodged not later than June 1st with the general manager, Mr. H. A. Hedley. There are in all eight classes, embracing agriculture, mining, industrial design and manufactures, machinery and labour-saving appliances in motion, locomotion and transport, marine engineering and shipbuilding, lighting and heating, science, education, music, and sports and sporting appliances. Separate sections will be devoted to women's exhibits, archæology, and fine art.

"A HOSPITAL SHOULD BE GOVERNED BY THOSE WHO SUPPORT IT."

MR. C. B. KEETLEY, surgeon to the West London Hospital, read a paper with this title at the Hotel Victoria, at a meeting of the Council of the Charity Organisation Society, on April 2nd, when Lord STAMFORD presided.

Mr. KEETLEY said that the money difficulties of hospitals, as well as the abuse of out-patient departments, were to a great extent due to want of direct public interest in them. Their management drifted into the hands of cliques or of individuals often uninformed and lukewarm and always practically irresponsible. No London general hospital with which he was acquainted was governed by the people who found the money, the time, and the skill which carried it on. He described a typical annual general meeting of governors of a typical London general hospital. Year after year this meeting was summoned only by advertisements in the newspapers—advertisements which did not catch the eyes of the governors, who, therefore, never attended. Could any more effective way of injuring the finances of a hospital be devised than that of keeping its subscribers at arm's length? It was the interest of the hospital to use every means that ingenuity could devise to get subscribers to take a personal interest in the place. But even inside the board of a hospital a clique could almost disfranchise and quite disgust all zealous members outside the clique. Among the methods of doing this were: (1) meeting at an hour or on a day inconvenient to independent members; (2) discussing questions privately beforehand and then voting solid at the meeting as if impervious to, and indifferent to, argument; (3) re-opening questions which had apparently been settled at former meetings when the decision had been contrary to the wishes of the wire-pullers; and (4) buttonholing members who seldom attended and bringing them up pledged to vote for one side of a question of which they had never heard the other side.

Every act of generosity or of goodwill to a hospital should be welcomed with warmth. He had too frequently seen such acts received with apparent coldness and even with suspicion. Evidence of this was the asking of £2000 for the endowment of a bed in perpetuity. There should be no bargaining about such matters. When a benefactor gave £1000 a bed should be named after him; that was the way to encourage him to give £2000 and to leave £10,000 to the hospital. He knew an institution to which working men contributed more than all the committee of management put together. In return they receive a few life-governorships and were left to find out when the annual meeting of governors took place. They ought to have a seat or two on the board. Another influential class of persons who were sometimes kept at a distance by hospital boards were Nonconformist ministers. The base of support of a hospital depending on voluntary contributions could not be made too wide; it certainly should not be narrowed for sectarian reasons. By the stereotyped form of board which he was deploring the same man was generally elected chairman year after year. In time he lost his original zeal. Would the City of London be as active as it was in benevolence if the same man were Lord Mayor year after year for a quarter of a century? A chairman should not be re-elected unless his preceding year of office had been signalised by some special act of generosity, initiative, or energy for the benefit of the hospital.

Hospitals were carried on by money, skill, and time. The gratuitous time and skill were mostly given by the medical staff. He did not undervalue the services of lay committee men, with their knowledge of finance and of business, but an hour or two given monthly, or even weekly, could not compare with the 10 hours a week given by a zealous surgical officer. He knew of a hospital where most valuable services were given by the medical staff which until recently had only two members of the active staff on a committee of 50. And this committee sat at 11 A.M. on a Monday, when, of course, no physician or consulting surgeon could attend. Why were the medical staff thus treated? It might be thought that they were liable to be swayed by selfish interests and that the lay committee man was not—a baseless and, he might add, a base explanation. All alike, lay and medical, had occasionally axes to grind, friends to push, and fads to support; but the physician or surgeon to a hospital acquired an affection for it like that of a sailor for

his ship and was loath to spoil it. Medical electors had certainly more knowledge and they as certainly had not less impartiality than lay members. As an example of medical impartiality he said that as a youth he went to Birmingham to canvass for a house surgeoncy. The senior physician (the late Dr. Heslop) said: "My god-son, who is also the nephew of the chairman, is a candidate." "Then I had better go back," Mr. Keetley replied. "Not at all," said Dr. Heslop; "I glory in voting against my friends and relations." It was not, however, the great body of laymen who ruled the hospital; it was a select few of the senior ones, sometimes a single individual. Nearly all the others had been nominated by the "inner cabinet" and were their personal friends. The sham "annual general meeting" made the board self-elective. He had said that the present managing bodies of our London hospitals were practically irresponsible. When had they been removed from office? Why, whenever, a lay committee and a staff, or an important section of a staff, fell out it was always the medical men who had to go. The cruel thing about this was that at a certain time of life resignation of a hospital appointment might mean ruin to a medical man, while to the lay committee man it would mean simply parting with a hobby the place of which he could easily supply. It was no wonder, therefore, that our London hospitals had not that broad basis of support which they deserved and that they did not excite that universal and warm personal interest among well-to-do Londoners which they ought. He believed that a reform in these respects alone might suffice to sweep away the money difficulties of their hospitals. That reform would mainly consist in placing the government of each hospital in the hands, in fairly adjusted proportions, of all living persons who supported them by gifts of money, time, or skill. It would involve the substitution of real for sham annual general meetings for the election of officers, eager and grateful official acknowledgement of every kind of benefit, and a chairman only re-elected after a year of office signalised by special service and never re-elected for many consecutive years. It would involve also the recognition of the fact that a member of the acting medical staff on the board of a hospital differed from his lay colleagues, not in being less trustworthy, but in being better informed.

A discussion followed.

Mr. HOLMES said that he had listened to the paper with the greatest possible interest and he agreed most heartily with nearly every one of Mr. Keetley's conclusions. The paper seemed to him to be a sort of panegyric on the management of St. George's Hospital. In that hospital with which he was connected each governor was entitled to take the same share in its management as any other governor. There was no elected chairman. Failing the President or Vice-Presidents the senior governor present took the chair and no person in the hospital was excluded from the management because he was a medical officer so far as he was aware. The same arrangements had prevailed during the 170 years that the institution had existed and they had worked quite satisfactorily. He agreed that annual general meetings were usually shams and that they only met to register the decisions of an inner committee. At St. George's Hospital they had a quarterly court which met for the purpose of altering the rules of the hospital if necessary, but that court was usually attended by those who were present at the board meetings. The working of his own hospital showed that the scheme suggested by Mr. Keetley was not only practicable, but had actually been in practice for more than a century and a half with most perfect success.

Mr. C. W. THIES (Royal Free Hospital) was afraid that Mr. Keetley's paper would have the effect of leading people to suppose that there was a great reluctance to have medical men on the committees of hospitals. At his hospital there was a special medical committee, before which were laid all medical matters, and the lay committee always sought the advice of medical men in everything that concerned the medical staff or the patients. The annual meeting was not a useless institution, but, on the contrary, an exceedingly useful one. The work of a hospital was very largely the work of women and he found that women governors were most desirable. Where a number of nurses were concerned and where a great number of women were patients the advice of intelligent women was invaluable. With respect to the endowment of beds a fixed sum was necessary. He also differed from Mr. Keetley with respect to the annual appointment of a chairman. If there was one thing necessary in the carrying on of the work of a hospital it was continuity. A chairman, provided the right man was found, improved in his value to the hospital each year of his office.

Other speakers followed, who expressed varied opinions with regard to the points raised by Mr. Keetley, and the meeting terminated.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY.

DR. G. A. HERON (treasurer and chairman of council) presided on April 3rd at the annual general meeting of the London and Counties Medical Protection Society which took place at 12, New-court, Lincoln's Inn.

Dr. HERON moved the adoption of the annual report and balance-sheet and in the course of his remarks said that the point in the report on which he would like to lay most stress was in reference to the cases of alleged "infamous conduct" on the part of professional men which the council had reported to the General Medical Council after careful inquiry into the justice and validity of the complaints which had been submitted.[1] Of these cases some did not go beyond the Penal Cases Committee, and the grounds on which these cases were refused a hearing by the General Medical Council was not known to the Council of the London and Counties Medical Protection Society. He thought that the General Medical Council, to put it quite plainly, was wanting in common courtesy in that matter. No reasons were given for ignoring the cases which had been sent up to them. The General Medical Council must have known perfectly well that if they had communicated with the council of the society what they said would be kept private and there was not the slightest chance of anything becoming the subject of gossip. He did not understand such conduct on the part of a body like the General Medical Council towards a society which took the trouble to do work that should be done by the General Medical Council itself. The society would still continue to do its work, but until the constitution of the General Medical Council was materially altered it would not be possible to do much in the direction which he indicated. In regard to amalgamation with the Medical Defence Union the society had suggested the appointment of an impartial arbitrator, but this was not accepted, why he did not know. The council had done as much as could be reasonably expected of them towards amalgamation, and it was as much as they intended to do. He, however, personally still held the opinion that it was a pity for two organisations to do the work which one could do just as well.

Mr. F. GREAVES formally seconded the motion which was carried.

Dr. H. F. LAWRENSON (Highgate) proposed and Mr. J. C. P. MUIR (Notting Hill) seconded the re-election of the council and the Vice-Presidents, which was passed, Dr. T. Colcott Fox and Mr. J. S. E. Cotman joining the council in place of Sir Hugh R. Beevor, Bart., and Dr. G. W. Potter, who had resigned. To the list of Vice-Presidents were added the names of Dr. C. E. Hoar (Maidstone) and Mr. T. Vincent Jackson (Wolverhampton). The treasurer, the honorary secretaries, and the auditors were re-elected on the motion of Dr. Lorimer Hart, seconded by Mr. Muir.

THE MIDWIVES BILL: A MEETING OF PROTEST.

AT Cannon-street Hotel on Wednesday, April 4th, a meeting of the medical and lay constituents of the boroughs of South-East London and adjacent parts of Kent and Surrey was held to consider and adopt measures to resist the Registration of Midwives and particularly the Bill now before Parliament. Two Members of Parliament out of the 17 invited were present, and a small number of medical men.

Mr. GEORGE BROWN, who presided, in opening the proceedings said that the Bill now before Parliament would not have the effect that its promoters claimed.

[1] Vide THE LANCET, March 31st, 1900, p. 949.

He contended that every person who was not able to pay for midwifery services should be able to command the services of a medical man at the expense of the State. With regard to the way in which the present Bill had been rushed through Parliament he complained that while the Privy Council had received deputations from interested persons they had refused to hear deputations of the opponents of the Bill.

Letters and telegrams of regret for absence were read from Members of Parliament, Mr. Victor Horsley, and Mr. Campbell Boyd. A letter was also read from the General Practitioners' Union, expressing their approval of the meeting. Dr. Glover sent a letter in which he asked to be excused from attending the meeting and expressed the opinion that "the Direct Representatives should have been consulted before they were committed by public notice to such an attitude as your circular of invitation suggests." A letter from Dr. F. S. Toogood, who has acted as secretary to the meeting, was read denying that the circular in any way committed the Direct Representatives.

Mr. C. J. PARKE submitted the first motion, which was subsequently amended on the suggestion of Dr. WATT to the following effect:—

That this meeting of medical constituents of the boroughs and divisions of South-East London and adjacent parts of Kent and Surrey condemns the registration of midwives, and especially the Bill now before Parliament for that purpose, as a retrogressive measure, a reversal of the humane and enlightened policy of the Medical Acts, a violation of the statutory rights of medical practitioners, and a breach of public faith; and as mischievous and degrading class legislation endangering the health and lives of poor women and infants by providing attendance in midwifery of less efficiency than that now required under the Poor Law Acts and Orders.

Mr. Parke said that the women who would become midwives under the Bill would be drawn from the better class of servants, who would thus be raised to the position of qualified practitioners.

Dr. TOOGOOD, in seconding the motion, contended that the Bill was unnecessary, harmful, and would not meet or obviate the dangers for which it was ostensibly promoted. At the same time it was a betrayal and an infringement of the statutory rights and privileges of medical men.

Mr. H. W. FORSTER, M.P., said that he had attended this meeting with the object of gaining information on an admittedly difficult question. When the Bill again came before the House he should give the most careful consideration to all that he had heard, but he could not help thinking that some of the objections taken to the Bill were precisely of a class that the Bill would overcome. He instanced the objection to the limited amount of training which the licensed midwives would receive, and pointed out that the circumstances of the training lay with the discretion of the Board appointed for that purpose, so that the amount of training which the midwife would receive rested with the medical profession.

Mr. JOHN PENN, M.P., said that he, too, like Mr. Forster, had come to learn, and he wished particularly to get information on one point. In the second reading of the Bill a Member of Parliament said that the Bill had the approval of the General Medical Council and of the Royal colleges of Surgeons and Physicians. That statement carried weight in the House of Commons.

Dr. MYRTLE (Mayor of Harrogate) said that the General Medical Council had not given its consent to the Bill. With regard to the two other bodies they had given their consent by their councils which were the supreme courts of these two bodies, but which did not take into consideration the wants of the general practitioner.

Dr. MACNAUGHTON-JONES said that he did not oppose the registration of obstetric nurses, but he opposed this Bill.

The motion was then carried, as were also the two following motions—

That Members of Parliament for the boroughs and divisions represented by this meeting, and the Direct Representatives on the General Medical Council, are earnestly invited to unite with their constituents in resisting such registration, and particularly the Midwives Registration Bill now before Parliament.

That this meeting resolve itself into a Committee to cooperate with the societies which have organised this meeting and other medical societies for the purposes of giving effect to the foregoing resolutions; and particularly of arranging for a deputation to the Lord President of the Privy Council.

Mr. BROWN then left the chair, Dr. TOOGOOD taking his place, when Dr. LORIMER HART proposed a motion calling on Dr. Glover to resign in view of his attitude towards the Midwives Bill.

Mr. JOSEPH SMITH seconded.

Mr. FRANK STURGES, rising to a point of order, said that it was not right to put forward such a motion as no public notice had been given of it, and, moreover, four-fifths of those who had composed the meeting had left the room.

The CHAIRMAN ruled the motion not out of order, and Dr. HART said that he had obtained the permission of the Chairman (Mr. Brown) to propose it at this time.

Mr STURGES moved the previous question, but there was no seconder, and the following was carried as a resolution, there being only 17 members present:—

That whereas the General Medical Council and others who support the registration of midwives on the mistaken expectation of "influencing important details" have signally failed to amend the worst provisions of the Bill before Parliament, it is time that honestly mistaken supporters of such registration should cease to trifle with a public danger, and in view of the plébiscite recently taken by THE LANCET indicating the sense of a great proportion of his electors this meeting, regretting Dr. Glover's attitude of indifference to these considerations, invites him by resigning his seat and seeking re-election to afford to his constituents a just opportunity of reconsidering their relations to him.

THE WAR IN SOUTH AFRICA.

THERE is not very much to be chronicled this week connected with the medical history of the campaign in South Africa. From a military point of view, however, the course of this war has been attended with a number of surprises, some of which, it must be confessed, have been the reverse of flattering to the military sagacity and foresight of our leaders or exhilarating for the British public to read. The bad news of the latest ambush into which our unsuspecting troops fell and by which seven guns were lost and 200 men were missing, to say nothing of the killed and wounded on that occasion, has, like most things in the world, some compensations, for it has revealed the presence of a large Boer force in the immediate vicinity of Lord Roberts's headquarters. It is very difficult to believe that the scouting could have been of an efficient kind or of a searching character when no indications of the presence of the Boers were discovered; but there remains the further difficulty of understanding how there was no knowledge apparently of the existence of so large a force as is reported in such close proximity to the Commander-in-Chief's main body. The discovery of that fact at the present time has a most important bearing, for presumably Lord Roberts's column cannot advance against Kroonstadt and onwards to Pretoria before the Boers massed and hanging about its rear and right flank have been previously disposed of. There was at any rate some meaning, after all, in Mr. Kruger's boast that the Boers would retake Bloemfontein, and it is clear that they have never altogether relinquished the idea of making the attempt to do so. We have heard too often of our troops having been entrapped or caught in an ambush, but we never hear of this in connexion with the Boers. People in this country are beginning to get tired of being afterwards assured about that of which they have no need of assurance—namely, that our soldiers behaved with indomitable courage and coolness; the fact only adds to the national regret at the needless loss of life among such brave men. In the list of those killed in the late lamentable affair we notice the name, we regret to say, of Lieutenant Francis Stephen Irvine, a young officer of the Royal Army Medical Corps, who was temporarily attached to the Royal Horse Artillery. Lieutenant Irvine only entered the service on Nov. 17th last and was immediately sent out to South Africa. A correspondent visiting Koorn Spruit soon after the occurrence found that the wounded were being attended to by Major Worth, R.A.M.C. A field hospital was established at the station buildings a few miles from the Waterworks whither the wounded, about 90 in number, were conveyed from the field and treated.

There has been a severe outbreak of fever—most probably enteric fever—among the Boer prisoners and the occurrence has given rise to a good deal of active and anxious work among the officials at Cape Town and Simons Town. The outbreak has proved to be of a severe and fatal character; quite a number of deaths have already occurred and some are still taking place. It is needless to say that the military authorities are doing all they can for the relief of the sufferers (who are sent off the transports to the hospitals on shore for treatment). Colonel Supple, R.A.M.C., is about to report officially on the subject. Meanwhile 1000 of the Boer prisoners are being sent to St. Helena. At

Simons Town deaths were occurring daily and there were, according to the latest account, 20 dangerously ill and 40 seriously ill. The diseases from which the Boer prisoners are suffering were contracted whilst serving against us in the field and are attributable to the terribly insanitary conditions under which they had been living and the hardships which they had undergone.

Statements having been made that the Simons Town water and the overcrowding of the transports were responsible for the outbreak of typhoid fever among the Boer prisoners, the admiral and the principal medical officer inspected the transports with the result that such cases as could be removed were sent ashore to a special hospital. Arrangements have also been made to prevent overcrowding. The typhoid fever and measles from which some of the prisoners are suffering were contracted in the trenches at Paardeberg. Many of General Cronje's men were so worn out after their hardships that they had little strength left to fight disease. The prisoners have made no complaint as to their treatment or food. The water which they drink is from the Simons Town reservoir and is the same as that supplied to the whole of the fleet. The departure of the transports with the Boer prisoners for St. Helena had been delayed for a time owing to the increase of sickness among the prisoners.

Enteric fever, that scourge of modern armies, is unfortunately largely prevalent among our troops in South Africa, as may be seen from the number of fatal cases recorded in the Army sick returns, and we are afraid that it is bound to go on increasing until the cold season establishes itself and the troops are on the march and daily taking up new ground. Old camping grounds are almost invariably unhealthy from soil-soakage and fouling under even fairly good sanitary management, but where this has been altogether set at nought and dirt and surface pollution of all kinds have been allowed to take place and accumulate, as has been the case with sites occupied by the Boer troops, these are especially unhealthy and a plentiful crop of disease, in the shape of enteric fever, dysentery, diarrhœa, and a septic form of pneumonia may be expected to follow their occupation.

A number of troops and horses are arriving weekly at the Cape from this and other countries. A complete hospital, "The Princess Christian's Hospital," the gift of Mr. Alfred Moseley, has arrived at Durban. It is to be erected at once near Pinetown. Major Mathias, R.A.M.C., is in charge. It is to be used as a relief base hospital to the hospital at Pietermaritzburg.

A return recently issued from the War Office shows that up to the end of last week the total casualties reported since the beginning of the war are as follows: Killed, wounded, missing, and prisoners: officers, 1007; non-commissioned officers and men, 14,634. Of these the officers killed numbered 202 and non-commissioned officers and men 1945; wounded officers 655, non-commissioned officers and men 9324; missing and prisoners: officers 150, non-commissioned officers and men 3365. The total losses (exclusive of sick and wounded men now in British hospitals in South Africa) are returned as 12,200.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

St. Marylebone Sanitary District.—Mr. Wynter Blyth, referring in his current monthly report to the enormous mortality during the month of January, observes that influenza, which was in the main responsible for the increase, has never been more prevalent. At least 75 per cent. of the population have been, he affirms, more or less affected. This is a large proportion, and it would have been instructive if Mr. Blyth could have furnished the data or impressions upon which he founds his conclusion. The decision of the Lord Chief Justice as to the classing of Salvation Army shelters as common lodging-houses is warmly welcomed by Mr. Blyth, who evidently looks forward to the time when, under the provisions of the Local Government Act, 1899, the Borough Council of St. Marylebone will take steps under Section 5 for the transfer of the county council's power in this particular to the borough council. He thinks that the control of these institutions cannot be conveniently carried out by the central authority.

Poole Urban and Port District.—The general death-rate of Poole during 1899 was 17·47 and the zymotic death-rate 0·16 per 1000 in each instance, while the infantile mortality amounted to as much as 173 per 1000 births. In a population estimated at 18,603 there were during 1899 74 cases of scarlet fever, but out of this number no death took place, the disease, it appears, being of a very mild type. We do not gather from Dr. H. A. Lawton's report whether the sewerage system for Poole is complete, or if complete whether it is in all respects satisfactory, but as we note that the removal of night soil has been regularly and satisfactorily carried out we conclude that the water-carriage system is not yet general in Poole. The health of the port has been, we are told, satisfactory, there being but one case of infectious disease—enteric fever—which came to the notice of the sanitary authority.

Carlisle Urban District.—A system of voluntary notification of pulmonary phthisis, tabes mesenterica, and tuberculous meningitis is in force in this district in so far as parochial medical officers and the house surgeons at public institutions are concerned, and between Nov. 1st and Dec. 31st eight cases of phthisis and one each of tabes mesenterica and tuberculous meningitis were notified. We are not told what action was taken in these cases, but it may be assumed that good use was made of the information, though we are curious to know what method was adopted for dealing with the case of tuberculous meningitis. Carlisle is well to the front in that it has appointed a veterinary inspector to examine the cows in the district. There were diagnosed by this officer during 1899 eight cases of inflammation of the udder, seven of gastric derangement, three of tuberculosis, two of pneumonia and pleurisy, two of septic inflammation of the womb, two of septicæmia, and one each of milk fever, congestion of the lungs, and paralysis. The milk in each instance was directed to be destroyed. 177 newly-purchased cows were found to be free from tuberculosis of the udder and nine showed signs of having suffered from previous inflammation of the udder; of these nine seven were tested with tuberculin and two reacted, the two which were not tested being re-sold. Mr. Craig Robinson, the veterinary inspector, reports that altogether 3775 examinations were made to ascertain the presence of disease likely to be prejudicial to milk. We are not told in this report what action is taken when a cow is found to react to the tuberculin test or whether any compensation is allowed. Perhaps Mr. Robinson will kindly intimate this in his next annual report.

Chesterfield Urban District.—There appears to be a hitch in the provision of an isolation hospital for the use of this district and certain portions of North Derbyshire. The provision was to have been made under the Isolation Hospitals Act, 1893, but the preliminary inquiry as to the loan has not yet been held and there is apparently some difference of opinion as to the constitution of the hospital committee. Perhaps the matter is being held over pending consideration by Parliament of the Isolation Hospitals (Amendment) Bill, which provides for the borrowing of money by the county councils for the assistance of local authorities anxious to provide hospital accommodation. The housing of the working classes has been to the fore in Chesterfield during 1899. Dr. Meredith Richards hesitates to close certain houses which he has reported as "unfit for human habitation" as there are no houses in existence suitable for quite the poorest classes. For this residuum of the population private enterprise cannot, Dr. Richards thinks, cater, and the town should, he urges, erect some artisans' dwellings. He condemns the practice of buying up insanitary areas since so much of the money which might otherwise be spent on building is swallowed up by compensating the rack-renting owners of insanitary property. But with decent houses provided by the sanitary authority the insanitary houses might be gradually closed without compensation. Experiments were continued during 1899 as to the precise effect upon the Chesterfield sewage of biological treatment by anaerobic and aerobic filters, previous investigations having shown that double filtration of the tank effluent is essential to the production of a satisfactory effluent. The average results as regards albuminoid ammonia, expressed in parts per 100,000, of a series of experiments are shown thus:

Tank effluent.	Anaerobic filter.	Aerobic.
0·72	0·38	0·086

It is not quite clear from the report what treatment—if any—is adopted in the tank.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 7090 births and 4753 deaths were registered during the week ending March 31st. The annual rate of mortality in these towns, which had been 20·3 and 21·6 per 1000 in the two preceding weeks, declined again to 21·4 last week. In London the rate was 20·3 per 1000, while it averaged 22·5 in the 32 provincial towns. The lowest rates in these towns were 11·9 in Croydon, 13·5 in Huddersfield, 13·8 in Burnley, and 14·3 in Brighton; the highest rates were 27·2 in Manchester, 29·4 in Preston, 31·3 in Liverpool, and 33·8 in Wolverhampton. The 4753 deaths in these towns included 497 which were referred to the principal zymotic diseases, against 422 and 471 in the two preceding weeks; of these 168 resulted from measles, 146 from whooping-cough, 80 from diphtheria, 38 from diarrhœa, 34 from "fever" (principally enteric), 29 from scarlet fever, and two from small-pox. The lowest zymotic death-rates last week occurred in Croydon, Brighton, Swansea, and Birkenhead; and the highest rates in Bristol, Wolverhampton, Salford, Blackburn, and Preston. The highest proportional mortality from measles occurred in Plymouth, Bristol, Cardiff, Wolverhampton, and Preston; from scarlet fever in Burnley and Blackburn; from whooping-cough in Portsmouth, Wolverhampton, Liverpool, and Bolton; and from "fever" in Derby and Huddersfield. The 80 deaths from diphtheria included 31 in London, nine in Leeds, nine in Sheffield, five in Leicester, four in West Ham, and four in Salford. One fatal case of small-pox was registered last week in Liverpool and one in Hull, but not one in any other of the 33 towns. Three small-pox patients were under treatment in the Metropolitan Asylums Hospitals on Saturday last, March 31st, against five at the end of each of the two preceding weeks; no new case was admitted during the week. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 1696, against numbers declining from 3578 to 1715 on the 19 preceding Saturdays; 172 new cases were admitted during the week, against 147, 181, and 170 in the three preceding weeks. Influenza was certified as the primary cause of 26 deaths in London. The deaths referred to diseases of the respiratory organs in London, which had been 373, 391, and 456 in the three preceding weeks, further rose last week to 469, and were 39 above the corrected average. The causes of 68, or 1·4 per cent., of the deaths in the 33 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Portsmouth, Bristol, Cardiff, Leicester, and in 11 other smaller towns; the greatest proportions of uncertified deaths were registered in Birmingham, Liverpool, Huddersfield, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined from 31·7 to 22·2 per 1000 in the five preceding weeks, rose again to 22·8 during the week ending March 31st, and exceeded by 1·4 per 1000 the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 11·3 in Leith and 16·9 in Perth to 25·2 in Glasgow and 25·3 in Edinburgh. The 705 deaths in these towns included 24 which were referred to whooping-cough, 14 to measles, 14 to diphtheria, 14 to diarrhœa, five to "fever," and four to scarlet fever. In all 75 deaths resulted from these principal zymotic diseases, against 63 and 68 in the two preceding weeks. These 75 deaths were equal to an annual rate of 2·4 per 1000, which was 0·2 per 1000 above the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of whooping-cough, which had been 15 and 17 in the two preceding weeks, further rose to 24 last week, and included 13 in Glasgow, six in Aberdeen, three in Edinburgh, and two in Paisley. The deaths from measles, which had been 17 and 19 in the two preceding weeks, declined again last week to 14, of which nine occurred in Glasgow, three in Paisley, and two in Dundee. The fatal cases of diphtheria, which had been four and six in the two preceding weeks, further rose to 14 last week, and included seven in Glasgow, three in Edinburgh, and three in Greenock. The deaths from diarrhœa, which had been 18 in each of the two preceding weeks, declined last week to 14, of which six were registered in Glasgow and four in Edinburgh. The fatal cases of "fever," which had decreased from nine to four in the three preceding weeks, rose again to five last week, and included two in Glasgow and two in Dundee. The four deaths from scarlet fever corresponded with the number in the preceding week, and were all recorded in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had declined from 362 to 170 in the five preceding weeks, rose again last week to 172, and were 12 above the number in the corresponding period of last year. The causes of 37, or more than 5 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 31·2 and 35·2 per 1000 in the two preceding weeks, further rose to 36·4 during the week ending March 24th. During the 13 weeks of the quarter ending on Saturday last, the death-rate in the city averaged 39·6 per 1000, the rate during the same period being 23·4 in London and 23·8 in Edinburgh. The 244 deaths registered in Dublin during the week under notice were eight in excess of the number in the preceding week, and included two which were referred to the principal zymotic diseases, against numbers decreasing from 12 to six in the four preceding weeks; of these one resulted from diphtheria and one from "fever." These two deaths were equal to an annual rate of 0·3 per 1000, the zymotic death-rate during the same period being 1·8 in London and 1·7 in Edinburgh. The mortality from the principal zymotic diseases recorded in Dublin last week was lower than it had been during any week since February, 1896. The 244 deaths in the city during the week under notice included 37 of infants under one year of age and 78 of persons aged upwards of 60 years; the deaths of infants showed a decline, while those of elderly persons exceeded the number in the preceding week. Nine inquest cases and six deaths from violence were registered, and 96, or nearly two-fifths, of the deaths occurred in public institutions. The causes of 12, or nearly 5 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments are notified:—Staff Surgeon W. A. Whitelegge to the *Phœnix* on promotion. Surgeons: O. Rees to Royal Marine Depôt, Deal; H. Newsome to the *Excellent*; and E. A. Shaw to the *Resolution*.

ROYAL ARMY MEDICAL CORPS.

Surgeon-Lieutenant James P. G. Macnab, 1st Fife Volunteer Artillery, is granted the temporary rank of Lieutenant whilst serving in South Africa. Major H. W. Austin has embarked for St. Helena.

INDIA AND THE INDIAN MEDICAL SERVICES.

Deputy Surgeon-General H. Cayley, retired, is granted the temporary rank of Colonel whilst employed with the Scottish National Red Cross Hospital.

VOLUNTEER CORPS.

Rifle: The undermentioned officers are borne as supernumerary whilst serving with the Royal Army Medical Corps in South Africa:—

Memorandum.—2nd Volunteer Battalion the Northumberland Fusiliers: Surgeon-Lieutenant J. Clay. 1st Volunteer Battalion the Royal Warwickshire Regiment: Surgeon-Major E. L. Freer; A. H. McDougall.

Rifle: 7th Volunteer Battalion the Royal Scots (Lothian Regiment): Angus John Grant to be Surgeon-Lieutenant. 1st Sutherland (the Sutherland Highland): Surgeon-Captain James Bertie Simpson resigns his commission and is appointed Lieutenant.

MILITIA MEDICAL STAFF CORPS.

Surgeon-Captain L. W. A. Keiffenheim-Trubridge resigns his commission.

MENTIONED IN DESPATCHES.

Despatches have been received from Rear-Admiral Sir Robert H. Harris, K.C.M.G., Commander-in-Chief on the Cape of Good Hope and West Coast of Africa, reporting the proceedings of the Naval Brigade from the time of reaching Lord Methuen's headquarters to the Battle of Graspan. The following are extracts:—

From Captain A. E. Marchant, R.M.L.I., Commanding the Royal Naval Brigade: "Fleet Surgeon James Porter, who was with the firing line, and Surgeon Beadnell with the guns did gallant and most excellent service under trying conditions, under fire nearly the whole time."

From Lieutenant F. W. Dean, R.N.: "I found Surgeon Beadnell at Belmont Station; he had been invalided by a medical board that day and was waiting for the hospital train. Though in bad health he gladly accepted my order to remain with the guns in view of a pending engagement, and on Saturday he rendered invaluable aid to our wounded, working close up to the guns where shrapnel balls were showering every other minute."

From Rear-Admiral R. H. Harris: "Captain Prothero reported to me verbally that Fleet Surgeon Porter on the field of Graspan was well up to the front with his bearers and did very fine service for the wounded."

From Lieutenant F. C. A. Ogilvie: "Surgeon Macmillan, R.N., and Lieutenant Palmer, R.A.M.C., were conspicuous in their attendance to the wounded."

TRANSVAAL WAR NOTES.

The Queen has sent a framed portrait of herself to the Golder's Hill Convalescent Home for Wounded Soldiers, Hampstead.

Major Hassard, R.A.M.C., is to go to South Africa in charge of a draft of 160 men of the Royal Army Medical Corps, composed of specially enlisted St. John Ambulance men.

The Princess of Wales has contributed 80 mattresses towards the equipment of the Welsh Military Hospital for South Africa. The staff of the hospital was inspected by H.R.H. the Prince of Wales at Marlborough House on Monday, April 2nd.

The office of the Royal Army Medical Corps South Africa Fund has been removed from 100, Victoria-street, to 77, George-street, Portman-square, W. Subscriptions will still be received by the honorary treasurer, Mrs. Charters Symonds, 58, Portland-place, W.

TRANSVAAL WAR CASUALTIES.

Lieutenant F. S. Irvine, R.A.M.C., attached to the Royal Horse Artillery, was killed in the action near Bloemfontein Waterworks on March 31st.

LORD WANTAGE ON MOUNTED INFANTRY.

AMONG the points which the present war in South Africa has prominently brought to light in connexion with the Boer tactics is their remarkable mobility and the advantages which they have derived from their superiority in this respect over ourselves. We have received a copy of a little pamphlet embodying extracts taken from "Hansard" of a debate which took place in the House of Commons on August 4th, 1881. Although the subject scarcely comes within the purview of a medical journal we may nevertheless be permitted to say that Lord Wantage has done well to remind the public of what was said on that occasion, as it was prophetic of what has since taken place in South Africa. The pamphlet is both interesting and instructive and well worthy of being read and considered now and we can only hope with him that some practical result may follow his having called attention to the subject.

The following gentlemen have been nominated by the Secretary of State for War as Surgeons on-Probation for the Royal Army Medical Corps:—Mr. T. E. Fielding, M.B., B.Ch., B.A.O., B.A., Trinity College, Dublin; Mr. A. C. Adderley, L.R.C.S. Edin., L.F.P.S. Glasg.; Mr. J. Tobin, L.R.C.S., L.R.C.P. Edin., Cork Medical School.

The following civil surgeons having arrived at the Royal Victoria Hospital, Netley, for duty are posted as follows:—Civil Surgeon Roche to the Surgical Division; Civil Surgeon Elmes to the Medical Division.

The troopship *Dilwarra* arrived on March 26th. She carried between 300 and 400 invalids, most of whom were sent to the Herbert Hospital at Woolwich and to the Aldershot Hospital.

Correspondence.

"Audi alteram partem."

SMALL-POX AND VACCINATION.

To the Editors of THE LANCET.

SIRS,—In the admirable Croonian Lecture delivered by Professor Ehrlich at the Royal Society he commenced with a eulogy of Jenner as the first who obtained immunity in a specific disease by the introduction of the virus in a modified form. Professor Ehrlich said: "It was shown by the use of an attenuated virus, which of itself was non-injurious, that it was possible to ward off the disease caused by the virulent virus. Jenner also established—what is most important from the practical point of view—that by the inoculation of the weakened virus there was produced not only an immediate but also an enduring protection." This statement contains the doctrine usually taught but it is only correct in a limited sense and is not true according to the usual interpretation put upon it. It seems to imply that the introduction of the virus of small-pox into the system would produce a most violent set of symptoms which the modified virus, as in vaccinia, would not. This, however, is true only when small-pox is taken in the ordinary way, for if it be given to the patient after the manner of vaccination by inoculation a very different result is produced; indeed, the effects of variolous and vaccine inoculation are not much unlike as regards symptoms or fatality, whilst the course of the two maladies is the same.

During all my teaching of many years I was accustomed to allude to the different character of the symptoms in many specific diseases according to the mode in which they were taken, for this seemed to influence the time of incubation. This was observed in small-pox, syphilis, and in some other diseases, and of late it has appeared to me that the course of the symptoms after the introduction of diphtheritic toxin is very different from that seen in ordinary diphtheria. I have sometimes heard an organic virus spoken of as if it were as simple in its composition as oxalic acid or arsenic and productive always of the same effects in whatever way it finds its way into the body, forgetful of the word incubation or breeding time, which implies that some vital or chemical process is going on for some days before the whole system is set in flames.

Let us look for a moment at a case of small-pox contracted in the usual way by infection through the air; after twelve days, which is the usual incubative period, fever symptoms appear and on the third day afterwards a papular rash is seen covering the body which then becomes vesicular and matutates on the eighth day. The rash is sometimes confluent, occasionally hæmorrhagic and accompanied by other symptoms so violent that a considerable portion of those attacked succumb. Now if we look at the case of inoculation by variola we see a very different course of symptoms According to Lady Mary Wortley Montagu who introduced the method from Turkey and whose words I quote, "the small-pox so general and so fatal amongst us is entirely harmless by the insertion or ingrafting which is the term they give it. Every year thousands undergo this operation; they take the small-pox by way of diversion as they take the waters in other countries." The system was introduced into England and largely practised. Various accounts of this may now be read by Dr. Jurin, the first physician to Guy's Hospital, and others. I will quote from Dr. Gregory. He says that after the inoculation a red spot appeared, followed by a papule and then a vesicle, which maturated or became fully developed on the eighth day. Then followed febrile symptoms with the appearance of a papular rash over the body; this did not develop but quickly dried up and the average number of papules might be said to be a hundred. In the case of inoculation, so largely practised in the East, it might of course be a question whether the virus had undergone some alteration, but as practised in England it seems as if an ordinary case of small-pox supplied the virus, for we read of mild cases having resulted from the insertion of matter from patients having the confluent form.

It will be seen from this description how the two forms of small-pox varied. When the virus was inoculated the local manifestations at once appeared and the vesicle was developed in a week's time. This may be regarded as the

period of incubation. Then constitutional symptoms showed themselves attended by a general rash of a slight character which soon disappeared. It will be seen that this is the course also of vaccinia and resembling it also in the anatomical structure of the vesicle. In small-pox obtained in the ordinary way the incubation period is sometimes double that of the inoculated form, the average time being twelve days; then febrile symptoms appear and after two more days a universal rash which takes another week to maturate. I might remark that the practice of inoculation was discontinued because the form produced by it was more or less contagious and therefore an important disease was being kept alive in our midst; also because occasionally death followed, which was a fearful thing to contemplate when the disease had been deliberately given to a healthy person, but more especially did the practice cease when the safer method of vaccination was coming into vogue. I will remark once more that the inoculated small-pox and vaccinia resemble one another very closely in their course as well as in their mildness and results. These two should be made subjects of comparison and not vaccinia and the small-pox as now ordinarily seen. The two latter are put side by side and the contrast is enormous.

I cannot think that those who are working at bacteriology and the subject of specific disease can have fully considered this question of inoculation and how the time of incubation and its consequences may vary according to the mode in which the virus is introduced. In writing these few lines I am intending to do no more than comment on the statement of Professor Ehrlich that the difference between the effects of small-pox and vaccinia were due to the dilution or attenuation of the virus. This may be true but it does not contain the whole truth. I should say that Professor Ehrlich continually alludes to the fact of some animals not being susceptible to particular kinds of virus and also that the system may be affected more markedly through some tissues than others.

The remarkable circumstance of the different character of small-pox according to the mode in which it was taken struck Dr. Gregory, and he says: "Why the inoculated should prove so much milder than the casual small-pox, why so much difference of effect should result from the morbid germs being received into the system through the medium of the cutaneous absorbents I do not know. The circumstance is truly inexplicable but it must not blind us as to the facts." I suggest that modern workers should find the answer. I am, Sirs, your obedient servant,

Grosvenor-street, March 31st, 1900. SAMUEL WILKS.

THE STATISTICS OF THE ANTITOXIN TREATMENT OF DIPHTHERIA.

To the Editors of THE LANCET.

SIRS,—The Hon. Stephen Coleridge, in a pamphlet he has recently issued, quotes the death-rates from diphtheria before and since the introduction of the antitoxin treatment and calls them the "informing though melancholy figures," and adds: "If these figures fill Mr. Paget with confidence in it as a cure it would seem that his prejudices are stronger than his arithmetic." It is really astounding that a man should come forward to instruct the public who has not grasped the elementary principles of medical statistics. The antitoxin treatment can only very indirectly diminish the number of cases of diphtheria, but what it can do is to diminish the proportion of deaths to cases. According to Dr. E. W. Goodall "the systematic introduction of the treatment into hospitals has reduced the case-mortality of diphtheria by nearly one-half," and Mr. J. L. Hague has shown that the mortality of post-scarlatinal diphtheria, formerly considered a most virulent form of the disease, has since the use of antitoxin become very slight. There has, unfortunately, been a steady increase in the number of cases of diphtheria and a consequent increase in the deaths, but to prove that antitoxin is a useless remedy Mr. Coleridge should supply us with the number of cases treated with antitoxin and those treated without and the number of deaths in the two sets of cases. The figures he brings forward have no bearing on the point in dispute and it may seem hardly necessary to draw attention to the fallacy involved in them, but if no answer be forthcoming it might be said that no answer could be given. My personal experience of antitoxin in hospital and private practice has been so satisfactory that whereas I formerly regarded diphtheria with the greatest apprehension I am now confident that if I see the case at an early period of the disease and if antitoxin be used the patient will almost certainly recover.

I am, Sirs, yours faithfully,

Wimpole-street, March 26th, 1900. F. DE HAVILLAND HALL.

THE JENNER SOCIETY.

To the Editors of THE LANCET.

SIRS,—I should like to draw the attention of public vaccinators to the advantages of becoming members of the Jenner Society, of which Dr. F. T. Bond of Gloucester is the honorary secretary. The literature of this society is most useful and I have vaccinated the children of several anti-vaccinationists who were "converted" after reading "A Plea for the Children." Surely it is about time that there was some definite law upon the subject of efficient vaccination. In my district, for the sum of 1*s.* each, hundreds of children are vaccinated annually in one small place and a certificate of successful vaccination is given. The advice of the Direct Representatives of the profession upon the matter would be interesting. Should public vaccinators vaccinate in less than three places? It seems to me that in cases of children who have reached the age of three years and upwards and whose parents will only allow them to be vaccinated in two places that we might be allowed to do so, especially as the parents in several instances have been already fined or have had conscientious objections granted to them. I am, Sirs, yours faithfully,

J. DIBBLE STAPLE, M.R.C.S. Eng., L.S.A. Lond.,
Public Vaccinator for the Ashley District Bristol Union.

LARGE DOSES OF CARBOLIC ACID.

To the Editors of THE LANCET.

SIRS,—Having read with much interest the articles in THE LANCET of last year on the treatment of bubonic plague and influenza by large doses of carbolic acid I determined to try it in the latter disease. Although I did not find it necessary to use such large doses as those recommended by Mr. A. Wiglesworth it more than answered my expectations. I am not writing, however, merely to echo what has been said before in praise of this treatment, but to record a case in which an extremely large dose was accidentally administered without injury. The patient was a robust man, aged about 30 years. He was complaining of the ordinary symptoms of a mild attack of influenza and I ordered a mixture containing seven and a half grains of pure carbolic acid to two teaspoonfuls of water, flavoured with syrup of orange, to be taken, freely diluted, every two hours. When I called the next day the patient was about his business and it was not till three days later that his wife told me that she had at first misread the label and had given him two tablespoonfuls of the medicine at 8 P.M. and repeated it at 10. This means that he had taken a drachm of pure carbolic acid in two hours. Questioned afterwards he said he had felt no ill effects beyond a moderate feeling of heat in the pit of the stomach. The dose of carbolic acid which is to be looked on as poisonous apart from the action of the concentrated acid as a corrosive seems at present not to be determined. I am, Sirs, yours faithfully,

EDWARD GOODDY, F.R.C.S. Eng.

Llandudno, March 28th, 1900.

THE BRITISH MEDICAL BENEVOLENT FUND.

To the Editors of THE LANCET.

SIRS,—Will you kindly intimate in THE LANCET my change of address in connexion with the Wardrobe Branch of the British Medical Benevolent Fund?

I am, Sirs, yours faithfully,

26, Linden-gardens, W., April 4th, 1900. EDWARD EAST.

"THE SURGERY OF THE STOMACH."

To the Editors of THE LANCET.

SIRS,—In the table of statistics of gastroplication published in THE LANCET of March 24th, p. 831, a case operated on by me is referred to. The writer of the table is incorrect in his statement that "stricture of the pylorus was noticed

but not treated." There was no stricture of the pylorus and therefore it was not treated. Knowing Mr. Mayo Robson's desire to publish accurate tables I shall be glad if you will publish this correction. I may add that I have recently seen the patient, who has increased four stones in weight and is now working as a domestic servant.

I am, Sirs, yours faithfully,
WILLIAM HORROCKS, F.R.C.S. Eng.

Bradford, April 1st, 1900.

"LEAD POISONING IN THE POTTERY DISTRICTS."

To the Editors of THE LANCET.

SIRS,—Dr. C. M. Allan writes under the above heading in THE LANCET of March 31st, p. 966, to express his disapproval of my paper read at Trentham recently. He complains that the bulk of the paper was taken up by what anyone acquainted with the rudiments of electricity could learn for himself by reading a good work on medical electricity. May I add another sentence, also in the conditional mood? If the medical men of the district would learn what Dr. Allan says they could, and if they would also act upon it, they would be spared the mortification of seeing their cases of lead poisoning sent to other parts of the kingdom, at the expense of private charity, to obtain treatment which they cannot find at home.

I am, Sirs, faithfully yours,
Wimpole-street, W. H. LEWIS JONES.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

The Increase in the Plague Epidemic.—Its Development in the Cities of Bombay and Calcutta.

BENGAL is now experiencing the ravages of plague. Of the total deaths from plague in India last week 2383 occurred in the Presidency of Bengal and only 1363 were recorded for the Presidency of Bombay. There were 1581 deaths in the Patna district and 601 deaths in Calcutta. For the whole of India 3957 deaths were returned. Correcting the figures given for the two cities of Bombay and Calcutta I may say that there are daily occurring 200 deaths from plague in the city of Bombay and 100 deaths in Calcutta. The death-rate in the city of Bombay is still enormously high—viz., 170 per 1000 per annum—while in Calcutta it is at present only half that amount. A feature in the returns of the latter city is that the plague deaths recorded account for the excess on the average mortality. Not so in Bombay, where the system adopted is such that the official returns only show about a third of the deaths really due to plague.

The small-pox outbreak still continues high in the city of Bombay, and there is rather more small-pox than usual in Calcutta.

The numbers under "famine relief" continue to increase and many of the plague officials have been transferred for these duties. I understand that many of the sisters and several of the medical men will not be retained for further plague duty. The change of policy adopted by the Government of India and the local Governments has rendered their services useless. The "do-little" policy which has characterised the Bengal Government seems to have been taken up, or rather gradually slided into, by the other authorities. The people fall sick and die in their homes. They prefer it, and after all there is little evidence to show that it is a worse system than active interference. Disinfection of houses after deaths is not so much objected to, but compulsion to go into hospital or to evacuate their houses meets with every possible form of concealment. The practice of inoculation continues to be carried on actively in the city of Bombay and a few minor places. It is at a standstill in Calcutta.

March 15th.

HOSPITAL SUNDAY IN BRISTOL.—At the meeting of the committee of the Bristol Hospital Sunday Fund held recently it was stated that the total collections received amounted to £1362. There were 200 collections in churches and chapels, being 49 in excess of last year.

THE BATTLE OF THE CLUBS.

COWES.

(FROM OUR SPECIAL COMMISSIONER.)

THE conditions of medical contract work at Cowes are anything but satisfactory, and there has been a good deal of friction notably between the Foresters and their former principal medical officer. This gentleman in 1886 bought a practice at Cowes, which included some 1200 Foresters who paid 4*s.* a year for adults, and 3*s.* for juveniles of from six years to 18 years of age. Such contract work makes the purchase of a practice a very risky affair. The newcomer may lose some of the private patients; but, if the practice depends in the main on clubs, the loss may be, not of a few, but of several hundred patients. Nor is such loss gradual and perhaps compensated by an increase of practice in other directions. It is sweeping and sudden. In 1888 Mr. Bernard Hoffmeister joined his father at Cowes and was naturally anxious to build up a practice. This coincided with a growing desire on the part of the Foresters to employ another medical officer. As they had many members this was quite natural and legitimate; but the determination which was come to in 1891 to establish a separate medical aid society was very much opposed to the general interests of the profession. The new society was to consist of the wives, the children, the relatives, and the friends of the Foresters, and they would not be called upon to pay for any other form of insurance except medical aid. The medical officer of the Foresters objected strongly to this scheme. He pointed out that there was already too much contract work and that it was not beneficial either to the patient or to the medical officer unless it was strictly limited to the poorest sections of the population, and that even for this class there was a dispensary supported partly by charitable donations and partly by subscriptions collected on the provident system. Cowes has only a population of 10,620 inhabitants, and nearly 1000 are members of this dispensary. In 1888 the actual figures were 987 members. With the 1200 Foresters on the books in that year and the many other clubs which existed, it will be seen that very little scope remained for private practice, and now it was proposed to include the wives and relatives of the Foresters. Their medical officer refused to accede to the scheme, and the Foresters advertised for another medical officer, and received in response 14 applications. The result was that the Foresters brought a gentleman into the town and also appointed the two brothers, Dr. William Hoffmeister and Mr. Bernard Hoffmeister, as medical officers. They were to attend on the Foresters and on the members of the Medical Aid Society. The rules of this society (the Court Foresters Isle Medical Society) stated that the object of the society was the relief of the wives, the children, the widows, and the orphans of Foresters. All moneys received—subscriptions, entrance fees, fines—were to be employed only for the objects of the society. The medical officers were to be provided with the list of members quarterly, and members who needed to be attended in their own homes were to send notice to that effect before nine in the morning of the day on which they wished to be visited. The medical officers were to be selected by the Foresters and were to provide, not only medicine, but leeches, dressings, bandages, splints, and whatever else might be required for the proper treatment of the patients. There was, however, a considerate stipulation that the patients should return the splints when they were no longer required. In exchange for these extensive—and expensive—services adult members were to pay 4*s.* per annum, juvenile members from 12 years to 18 years 3*s.* per annum, and children from one year old to 12 years old 2*s.* per annum. Adults were to pay also 4*d.* annually as a management fee. One child was charged 4*d.* annually but two or more children only paid 6*d.* annually to cover the cost of management. The entrance fee for adults was 1*s.* and for members under 18 years of age 6*d.* The Medical Aid Society had not been long in existence when Mr. Bernard Hoffmeister died and his brother, Mr. John Hoffmeister, was appointed in his stead. Some resistance, however, had been made to this extension of club practice. The medical officers of the Foresters had succeeded in retaining the old Foresters—that is, the adult males—and in persuading one of the oldest practitioners in the town not to

have anything to do with the new Medical Aid Society. Mr. Bernard Hoffmeister, however, would not give up the appointment, for he maintained that it was impossible to get into practice unless such appointments were accepted.

In 1896 the Foresters held a meeting at which it was urged that their medical officer must either be called upon to resign his post or to accept the post of medical officer to the Medical Aid Society. The members even went so far after this meeting as to assert that a resolution to that effect had been passed. By this statement they hoped to break down the resistance of the medical officer, but that gentleman declared that he preferred to resign rather than be connected with the Medical Aid Society. The following year the gentleman who had been brought into the town suddenly disappeared and was said to have died. A short time previously the Foresters had started a lodge for females, and he with Mr. Hoffmeister, jun., had been appointed as its medical officers. These female Foresters paid 5*s.* per annum, and when the former vanished from the scene the male Foresters again asked their medical officer to take the women members, but again he refused. By this time Mr. Hoffmeister, jun., was tired of the female Foresters, for they not only gave a great deal of trouble but several of them were in good circumstances and had no right to belong to such an organisation. Mr. John Hoffmeister therefore called a meeting at his house, at which there were present Mr. John Hoffmeister, Dr. William Hoffmeister, Dr. Edgar Hoffmeister, Mr. H. W. Ewen (from East Cowes), Mr. P. Gibson, and Mr. W. S. Nockolds. Mr. P. Gibson argued somewhat in favour of the clubs even as to their inclusion of female members, but all the other medical gentleman present agreed that they would have nothing more to do with the Medical Aid Society which the Foresters had established. In March, 1897, Dr. Hoffmeister and Mr. Gibson wrote to the medical officer of the Foresters' lodge for males stating that the Medical Aid Society had offered new terms—viz., 6*s.* a year for adult women and 4*s.* a year for children, and extras to be paid according to the Poor-law tariff. A wage-limit was also to be imposed and fixed at £2 per week or a rental of £20 a year. They, however, ended by accepting lower terms, as shown by the following handbill which was printed and widely circulated:—

COURT 1822.—MEDICAL SOCIETY FOR WIVES AND FAMILIES OF MEMBERS.

MADAM,—The committee of the above society have pleasure in informing you that they have secured the services of the following gentlemen as medical officers: Drs. Hoffmeister, J. B. Hoffmeister, and Edgar Hoffmeister, also Dr. Percy Gibson. Their duties will commence July 1st, 1897.

Scale of charges.—Adults above the age of 18, 5*s.* 4*d.* per year; children from one to 18 years, 4*s.* 4*d.* per year. Entrance fees: adults over 18, 1*s.*; children, one to 18, 6*d.* each. Midwifery, £1 1*s.*; first cases, £1 5*s.*; over one mile 5*s.* extra, if over two miles 10*s.* extra.

Entrance fees will not be demanded of the present members.

Re-admission by examination of present members. All wishing to join must wait on the secretary before seeing the medical officers.

Wage Limit.—An average of £2 per week and a house rental of £20.

Foresters' Hall, Cowes. BRO. J. JOLLIFFE, Secretary.

Though it is something to have secured the recognition of the principle of a wage-limit, this limit is very high and, of course, it only applies to the Medical Aid Society which was started by the Foresters and not to the Foresters themselves. A very good house can be obtained at Cowes for £20 a year and there is no security whatsoever that even the wage-limit will be applied in practice. Nor is it easy to estimate correctly the income of members. For instance, many of the inhabitants are connected with yachts and ships. As a ship's steward a man may receive less than £2 a week regular salary, but the "tips" given to him by the passengers may more than double his income. Many persons in such positions are able to purchase freehold houses and should therefore be able to pay their medical attendants properly. Then, as the wage-limit, such as it is, applies only to the Medical Aid Society, if it debars any member of that society it is only necessary for him to become a full Forester to escape this restraint. Thus it is that many tradespeople belong to the Foresters and can therefore enroll their wives in the Foresters' lodge for females instead of the Medical Aid Society and then when they are ill they receive sick allowance as well as medical aid. A great many freehold houses at Cowes belong to the working class. The owners of these houses are skilled mechanics and artisans engaged in yacht-building, or mechanical engineers, or skippers on board yachts. One of the largest yacht-builders and one of the principal yacht-painters in the town are both members of the Oddfellows Benefit Society. There are entire rows of houses belonging to Oddfellows or Foresters. As some of these members live at a distance of three and four miles from the centre of the town the medical officer must keep a horse and carriage so as to be able to attend to them, and it requires a great many subscriptions at 4*s.* a year each to cover this outlay. Then the medical officer of the Foresters has to examine all candidates for membership and, whether accepted or rejected, he receives no pay whatever for this responsible duty. Many Foresters are on the Cowes list because the courts in that town are more than usually prosperous, and for this reason men who live at some distance seek to join them. This means a great loss of time for the medical officer, though it helps to ensure prosperity for the benefit society which he serves. At Cowes the Foresters allow 14*s.* a week during the first six months of illness, whereas courts in other places generally pay only 12*s.* During the second six months the allowance is 7*s.* a week and after that, and during the rest of the illness, 5*s.* a week is given. Lately, however, the last-named figure has been reduced to 3*s.* 6*d.*, though this does not apply to the old members. Altogether there are now some 1600 Foresters in Cowes and from 200 to 300 Oddfellows. Then there are the Wesleyan Benefit Society, the Rechabites, and the Boilermakers' Society, all the members of which pay 4*s.* a year for medical aid.

In 1898 the male Foresters made a final appeal to their medical officer. This time they definitely decided that he could not be allowed to retain only the male Foresters, but that he must also attend to the female members of their Medical Aid Society or withdraw altogether from their service. This, however, the medical officer with commendable consistency and courage refused to do. The Foresters therefore advertised for another medical officer; but by that time the "battle of the clubs" had spread throughout the country and the medical journals refused to insert their advertisement. Consequently only one application for the vacant post was made. The Foresters accepted his services for they had not only lost the medical officer of their male lodge but the Hoffmeister family had also joined in the opposition and resigned. Had the members of the profession at that time practising at Cowes held closely together victory was within reach, for with but one imported medical officer to do their work the clubs must have broken down. But this, unfortunately, was not the case. The medical officer of the male Foresters by surrendering his post gave up an appointment which was worth about £250 per annum. That he was right in complaining of the prevalence of abuse is proved by the fact that many Foresters on finding that they could no longer obtain his advice on club terms very readily paid him his usual fees. From one of these patients he obtained £21 in the course of a year and from two others £28 each. Had he remained their club medical officer he would have had to attend these persons as members of the club and would have received from them only 12*s.* instead of £77. When this gentleman bought the practice from the widow of his predecessor it was agreed that if he was not appointed medical officer by the Foresters he should pay £200 less. He was appointed and therefore paid the £200, nevertheless two years later the Foresters, as related above, wanted to increase their staff of medical officers and divide his practice with others. Thus the purchaser of such a practice has no control over it. He is at the mercy of the committees which manage the clubs and they may by a simple alteration of their rules destroy the value of a practice for which a heavy price has been paid perhaps only a short time previously.

There have also been difficulties with the Rechabites. They used to pay their medical officers by fees for attendance and not by a weekly sum, but when one of the gentlemen brought in went to Cowes he took them for a weekly sum and thus a good system was destroyed. He also allowed the introduction of women and children as members which his predecessor had refused to sanction. Some seven years ago an insurance company attempted to establish themselves at Cowes. After some refusals they succeded in obtaining the services of Mr. Hoffmeister, jun., but when this gentleman found that they canvassed in his name he at once resigned. At East Cowes when the gentleman employed found that they canvassed in his name he likewise refused to have anything more to do with them. The canvasser of this company was more pushing than discreet. He called on a lady at East Cowes and inquired who was her usual medical attendant. On being told he said that this

practitioner was very exorbitant in his charges and urged that she had better join his insurance company. Subsequently the Cowes branch of this insurance company was left without any medical officer at all and it collapsed. Thus in one case at least the struggle against contract work has proved successful.

I have found at Cowes some Foresters who sympathised with the grievances of the medical practitioners. Indeed, at one time, a court of Foresters proposed to do away altogether with their medical aid organisation. They would reduce their subscription by 4*s.* per annum and not employ any medical officers and thus leave their members to pay the usual fees to any practitioner whom they might select. This was certainly a most radical and most satisfactory solution of the difficulty. On considering their registered rules, however, they found that they were bound to pay the subscriptions in full and the only exception in these rules which was sanctioned was in regard to members who lived three miles from the town. They, and they only, could be exempted from the payment of the 4*s.* and consequently would not be entitled to medical aid. Thus the Foresters are obliged to continue the system whether they like it or not. Nor can they impose a wage limit, though many of them recognise that such a limit is fair and just. It has been seen that for the society which the Foresters of Cowes have created outside their own organisation they have established a wage limit, though the rules of their Order debar them from applying such a limit to themselves. The same difficulty exists with the Oddfellows. They cannot refuse the admission of a candidate for membership because of his financial position. A local branch or lodge has not the power to alter the terms of admission; this reform must emanate from the central governing body. This applies not only to England but to foreign countries. Thus some time ago in the United States of America a number of emancipated slaves and black men wanted to join different courts of Foresters. It is well known that strong race prejudices prevail in America, and the white Foresters accordingly refused to admit black men as Foresters. The law and the constitution of Foresters, however, recognise no differences of creed or colour, and it was absolutely unconstitutional to refuse the black men. They were therefore admitted, with the result that secessions on a large scale took place and many courts were broken up. It is now argued that a court of Foresters can no more impose a wage limit than it can refuse to admit a negro. The Oddfellows are in the same position. A wage limit implies a constitutional change and to bring this about the High Court or the central administrative body must take the initiative. The supreme authorities of the great benefit societies, however, are not composed of the rank and file of their members. Members of the better or more prosperous classes—such as, for instance, schoolmasters—are delegated to these high functions, and they are not likely to vote a reform which would involve their own exclusion from the benefits of the system of medical aid, and even if sufficient pressure could be put on them to ensure the adoption of such a reform it would not be possible to give it retrospective action. If this were not done the existing abuses would continue, but as the men died out they would become less and less prevalent. In any case, this is a question eminently suited for discussion at the meetings of a conciliation board composed of representatives of the medical profession and of the great friendly societies. In the meanwhile the best that the local branches can do is to persuade such of their members as possess ample means to become honorary members, and when a well-to-do candidate offers to join he also should be offered honorary membership. He can then take part in the meetings of the society where he will be treated with deference, and he will help the benefit society he joins by paying 10*s.* 6*d.* per year, which, however, will not entitle him to medical aid or sick allowance. Such honorary members are a credit to their societies and they honour themselves. They help their poorer brethren and they do not create any abuse by availing themselves of semi-charity intended only for the benefit of the poor. At Yarmouth I found that this was actually the practice at a small benefit society. Nevertheless, should a rich man refuse to join as an honorary member and insist on joining as an ordinary member the secretary has not the legal power to refuse to receive him. Another source of mischief is the great rivalry that exists between the different courts of Foresters, all courts strive to get the largest possible number of men to join their ranks, and therefore they are very lax as to whom they admit. Thus though they have the right to exclude a person who has been in prison it is very rare that any objection is made to the admission of a candidate even though there be such a slur on his name.

Returning to the situation of Cowes, it may be asked, What is best to be done? The answer is obviously that the first step to be taken is the formation of a Medical Union, and as Cowes is a very small place there should be a general union for the entire Isle of Wight, with, probably, the town of Newport as its centre. At Cowes there are several medical appointments which are practically in the gift of medical men. Thus the Trinity House appoints a medical officer for the members of the coastguard, and there are medical officers for the post-office servants and a Poor-law medical officer. If there were a strong medical union whenever vacancies occurred representations could be made so that those candidates who had acted in opposition to the interests of the profession should not be recommended by the medical advisers of the authorities who make these appointments. For medical men to recommend persons who by their selfish conduct have helped to injure and degrade their profession seems most inconsistent and wrong, but this may be done in ignorance if there is not a well-organised local medical union to take note of these matters and give timely warning. Men who do not study the interests of the profession as a whole, but who simply snatch at any appointment which is available without any consideration for the interests of their colleagues must expect that a dead set will be made against them. It is only a question of time and organisation. At Cowes the "battle of the clubs" has been fought bravely but almost single-handed by the former medical officer of the men's court of Foresters. The fact that he has lost a large portion of his income only further emphasises the absolute necessity for union amongst the medical men of the town An effort in this direction should now be made. A general meeting of all the medical practitioners in the island should meet at Newport or some other convenient place, and the basis of a Medical Union should be established. The success which I have recently described[1] of a similar effort at Yarmouth should be taken as an inspiring example for an analogous attempt in the Isle of Wight. The abortive struggle at Cowes demonstrates the need of such an endeavour.

COWES.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

The General Hospital.

THE 120th annual meeting of the supporters of this hospital was held on March 21st, the President, Viscount Curzon, M.P., being in the chair. The exhaustive report contained many interesting details in connexion with the new building. It showed that the income for 1899 from ordinary and extraordinary sources was £17,233. The expenditure reached a total of £22,772. A deficiency of £6401 10*s.* 2*d.* was shown upon the year's working, which with the adverse balance on the Jaffray Branch of £192 11*s* 11*d.* and the deficit in 1898 of £1185 13*s.* 5*d.* makes a total adverse balance of £7779 15*s.* 6*d.* to bring forward. It is thus shown that a considerable amount is needed from subscriptions and other sources to maintain the efficiency of the hospital. A welcome gift of £1250 was made by Mr. J. H. Pearson to dedicate a bed to commemorate his period of office as chairman of the board of management. A suggestion was made that ladies should be admitted on the board of management and another that the number of beds should be curtailed in order to lessen the expenses. Both these were referred for consideration and the usual votes of thanks were passed.

The Medical Institute.

The report of the Medical Institute for the year 1899 has been issued for the annual meeting. An improved financial position is exhibited in the gratifying announcement of excess of income over expenditure to the amount of £20 17*s.* During the past year 199 volumes have been added to the library, making a total number of 12,755. The rule permitting a composition fee to be paid for life membership was

[1] THE LANCET, Feb. 24th (p. 576), and March 3rd (p. 655), 1900.

found to have some disadvantages, and it has been abolished. The various officers were elected at this meeting.

The Health Committee and Typhoid Fever.

Efforts have from time to time been made to relieve the pressure on the various hospitals caused by the prevalence of typhoid fever. The committee have received the option of a site of four acres outside the town and they recommend that an administrative block and a pavilion capable of holding 10 patients should be erected on the land. This is a step in the right direction, as it will give the committee a hospital to be held in reserve for cases of small-pox, and will thus liberate the larger hospital for typhoid fever cases.

April 3rd.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Notification of Phthisis.

AN attempt to bring about the notification of phthisis has been made in Manchester with results that may be considered satisfactory. On Sept. 6th, 1899, the medical men connected with public institutions were invited to notify cases of phthisis, and notifications were received from them. On Feb. 3rd, 1900, the private practitioners of Manchester also were invited to notify cases of phthisis under their care. The visitors of the Ladies' Health Society also notified any cases met with in their daily visits to the houses of the poor. The total number of cases notified from Sept. 11th, 1899, to March 17th of the present year was 826, and of these 533 were reported before the private practitioners were asked to notify. The Poor-law medical officers reported 256 cases, 327 were reported from hospitals and institutions, 63 by female health visitors, 159 by general practitioners, and 21 from other sources. Since Feb. 5th more than half the cases have been notified by medical men in private practice. Patients and their relatives have readily given Dr. Harold Coates, who was appointed by the City Council in connexion with the notification scheme, all the information they could, and satisfaction has been expressed that active measures are being taken by the corporation to combat the disease. Owners and agents of property have readily consented to the disinfection of houses. The corporation has disinfected 149 houses in which patients lived, 235 have been cleansed and disinfected by the tenants, while 233 were reported clean, and the needful precautions are said to have been taken by tenants. There are still at least 146 cases to be visited. Thorough cleansing and disinfection are continually going on, and in several cases the landlords have "beautified" houses throughout—as the phrase goes—when a death has taken place. This is good as a beginning, and the corporation deserves credit for what has been done, but it must not be forgotten that behind the Sanitary Committee there is the distinct individuality of the medical officer of health as the initial force. It speaks well, too, for the kindly tact of Dr. Harold Coates and all concerned in this effort that so much has been done without friction or jar. The sanitary committee has resolved to invite applications for the position of medical assistant in connexion with the notification of phthisis at a salary of £200 a year. The control of the milk-supply has of course a close bearing on the production of tuberculosis, and it is interesting to note what is being done in this direction. The veterinary surgeon to the corporation, Mr. J. S. Lloyd, reports that between Jan. 26th and March 15th he visited 14 farms in the city and 49 outside and inspected 118 cowsheds. He examined 199 cows in the city and 741 outside. Five cows in the city and 58 outside had affected udders. 24 samples of milk from special cows were sent to Professor Delépine. Five were at once pronounced tuberculous, two gave negative evidence, and the rest were still in process of examination. As might have been anticipated the drainage of the cowsheds and farms is bad, and the majority of the cowsheds are "stuffy and overcrowded." It is curious to learn that there are three zones of cleanliness or the reverse. The cleanest sheds are in the city, the next in the surrounding district, and the worst in the country.

Professor Thomas Jones.

At the last meeting of the Manchester Royal Infirmary Board on the proposition of Mr. E. S. Heywood, the chairman, seconded by Sir F. F. Adam, a resolution was carried granting Professor Thomas Jones, honorary surgeon, six months' leave of absence on his proceeding to South Africa in charge of the Welsh hospital and wishing him every success and a happy return, in which hope the medical profession of Manchester heartily joins.

Manchester Royal Infirmary.

It was suggested some little time since by the Hospital Sunday and Saturday Fund Committee that a horse ambulance should be provided for Manchester, and a sub-committee of the Manchester Royal Infirmary Board, having ascertained the practice prevailing in Belfast, Liverpool, Birmingham, Edinburgh, and Leeds, reported at the meeting on March 26th in favour of "a proper system of horse ambulances for the removal of accident and urgent cases, but submitted that the duty of providing these rested on the city authorities." The sub-committee suggested that a deputation appointed by the committee of the Hospital Sunday and Saturday Fund and the boards of the Ancoats Hospital and the Infirmary should be requested to wait on the city authorities in order to urge upon them the "necessity of providing for the establishment of suitably equipped horse ambulances and of their efficient administration in connexion with the various hospitals of the city." A resolution was also adopted authorising the special committee appointed to deal with the resolution of the trustees on the question of rebuilding the infirmary to expend any money required for carrying out the terms of the resolution. If the city authorities therefore go no further than they have already gone in the attempt to obtain the infirmary site, the rebuilding—not the alteration or patching of the present one—will block the scheme for a few generations.

Manchester Students for the Front.

Yesterday afternoon three medical students from Owens College—Messrs. Jenkins, Stephens, and Eames—left Manchester for South Africa. They have volunteered for service as dressers and will be attached to the medical corps of the Welsh regiments at the front. They had a hearty "send off" at the station from a large number of their fellow students.

April 3rd.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The Glasgow Southern Medical Society: a Complimentary Dinner and the Presentation of an Address to Mr. Edward McMillan.

ON Thursday evening, March 29th, in the St. Enoch Station Hotel the Glasgow southern Medical Society entertained Mr. Edward McMillan of Pollokshields to dinner and presented him with an illuminated address on his retiring from practice. A large and representative number of the medical profession of Glasgow gathered in celebration of the event. Dr. Hugh Kelly, president of the society, occupied the chair, and among others present were Professor Sir W. T. Gairdner, Professor T. McCall Anderson, and Professor John Glaister. At the conclusion of an excellent repast and after the loyal and patriotic toasts had been duly honoured Sir W. Gairdner proposed the toast of "Our Guest." In doing so he expressed the pleasure it gave him to see so many medical brethren present to give honour to the guest of the evening. He had known Mr. McMillan for a long period—longer, indeed, than anyone in that assembly. He had seen him as a general practitioner in some trying conditions of family life and he had always regarded him as the ideal type of the family physician. At all times a thorough sympathiser with every medical organisation Mr. McMillan bore a particular regard for the Southern Medical Society. Quiet and unassuming in manner he had won for himself, during his long career, the love and respect of everyone. Speaking as a retiring man himself to a retiring man he expressed the hope that Mr. McMillan would enjoy many happy days in the remaining evening of his life. Dr. Robert Pollok then formally presented Mr. McMillan with the illuminated address and made reference to the spontaneous manner in which the movement of appreciation had been initiated and to the hearty way in which it had been carried to a successful issue. Joining the

society in the year 1858, the various offices held by Mr. McMillan were referred to, as well as his term of six years as representative on the board of the Victoria Infirmary. Dr. Pollok assured him that in his retirement he carried with him the best wishes of the members of the society.—Mr. McMillan, in replying, returned thanks for the very kind words that had been said regarding him and cordially thanked the society for the illuminated address. Proceeding, he entertained the company with some very interesting reminiscences of the early days of the society and of the original members. In conclusion, he again thanked the member for the high honour which they had conferred upon him. The other toasts which followed included "The University," proposed by Dr. T. W. Jenkins and replied to by Professor McCall Anderson and Professor Glaister; "The Faculty of Physicians and Surgeons," by Councillor Dr. James Erskine and responded to by Dr. Ebenezer Duncan; and "Kindred Societies," proposed by Dr. C. E. Robertson and replied to by Dr. John McVail.

University of Aberdeen.

In connexion with the graduation on April 4th it may be mentioned that on this occasion 36 candidates have passed the final examination in medicine—five as M.B., C.M., under the old ordinances and 31 as M.B., Ch.B., under the new ordinances. On March 31st the Rev. Dr. Marshall Lang was inducted as principal and thus became qualified to preside at the graduation ceremony. He was welcomed by the Senatus, to whom was also read his nomination as vice-chancellor of the University. As a Latin inscription on the chapel testifies, the building of King's College, Aberdeen, was commenced on April 2nd, 1500. Last Monday was therefore the 400th anniversary of this interesting event.

April 3rd.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Registrar-General's Office.

THE new position, that of medical superintendent in the General Registry Office, has recently been created in order to fill a want caused by the fact that the Registrar-General is no longer a medical man. The duties of the new officer will lie chiefly in connexion with the Statistical Department, and he will receive a salary of £350, rising to £500 a year. Dr. Ninian Falkiner, formerly Lecturer on Chemistry in the Carmichael College, and Secretary to the Section of State Medicine of the Royal Academy of Medicine, has been appointed to the post.

Dublin Sanitary Association.

The annual general meeting of the Dublin Sanitary Association took place in the council room of the Royal Dublin Society on March 29th. The report described the work of the council during the past years and alluded amongst other matters to the Hopper Barge at Butt Bridge, which on account of its position was stated to be a nuisance and a danger to the public health. Dr. John W. Moore, President of the Royal College of Physicians of Ireland, stated that he had recently seen the barge which existed in Liverpool, but it was in an isolated position where it was not a nuisance as in Dublin. Sir Charles Cameron, after alluding to the very important work of the association, remarked that a suggestion made by the association with reference to the examination of dairy cows was now being carried out by the corporation; a veterinary surgeon had been employed and his time was fully occupied. Dr. Charles Frederick Moore was elected President for the ensuing year and after taking the chair drew attention to the danger to public health which was caused by the lighting gas now supplied to the city, containing as it did a greatly increased amount of carbonic oxide gas. Sir Charles Cameron said that the gas company had agreed not to exceed the addition of 20 per cent. of water-gas.

Queen Victoria Cots in the Dublin Hospitals.

The High Sheriff of Limerick, Mr. Henry Cleeve, has forwarded to Lady Arnott, Dublin, a donation of £500 towards a fund which he hopes will be started with the object of founding beds, to be called the Queen Victoria Cots, in a number of the Irish hospitals to commemorate the visit of Her Majesty. An influential committee is being formed for the purpose of carrying out the project.

Belfast Royal Hospital.

At the annual meeting of the subscribers of the above charity held on March 29th it was reported that during the 16 months ending December, 1899, 3090 new cases were received into the wards, of which 1236 were medical and 1854 were surgical. There were 176 deaths during the 16 months. 34,390 new cases were treated in the out-patient rooms, and of these 30,772 were surgical and 3618 were medical. The total number of intern and extern cases was 37,645. 155 students attended during the winter session and 114 in the summer session. The gross receipts from all sources were £13,304 5*s.* 9*d.*, which with a balance of £1667 19*s.* withdrawn from invested funds, made a total of £14,972 4*s.* 9*d.* The gross expenditure was £15,233 0*s.* 8*d.*, so that there was a balance against the hospital of £260 15*s.* 11*d.* Special reference was made to the loss sustained by the hospital in the death of the late Professor Cuming. A sum of £3381 16*s.* 7*d.* had been received from the working classes. There can be no doubt that considering the amount of work done the expenditure of the hospital—about 7*s.* a case—is most economical, but the regular revenue has not kept pace. What is needed is either to make an effort to increase the number of regular subscribers (at present they are too few), or, as one of the speakers suggested, to support the hospital by a town rate. A 2*d.* rate on the present assessment of the city of Belfast would produce £9666, and would about cover the present regular expenditure of the hospital. The great mistake which is made in Belfast is that the same people are invariably asked to subscribe to all the various charities, while an effort has not been put forth to enlist new friends whose names have not so far appeared on the lists of subscribers to charities.

Health of Belfast.

Between Feb. 18th and March 24th 316 cases of zymotic disease have been notified as occurring in Belfast—viz., typhoid fever 84, scarlet fever 71, erysipelas 56, simple continued fever 49, diphtheria 39, membranous croup 12, puerperal fever three, and typhus fever and small-pox one each. There were 59 deaths from zymotic disease, 129 from phthisis, and 283 from diseases of the respiratory organs—that is, a total of 412 from chest affections. The annual death-rate from all causes was 26 4 (that for children under one year old being 4·9, and that for those of 60 years and upwards being 6·0) per 1000 of the population. The cases of typhoid fever and scarlet fever as well as the mortality therefrom have materially increased, as has also the death-rate from chest diseases, but notwithstanding the mortality from all causes remains almost unchanged and is lower than that of the other large towns of Ireland.

The Proposed Infectious Diseases Hospital, Belfast.

A deputation from the governors of Purdysburn Asylum, protesting against placing the Infectious Diseases Hospital in the vicinity of that institution, was to have appeared before the City Council of Belfast on April 2nd, but through some misunderstanding the members were not present, so it has been decided to call a special meeting of the corporation to consider the whole question. At a meeting of the corporation Councillor Williamson, M.D. R.U.I., strongly objected to any part of Purdysburn being taken up for the development of an infectious diseases hospital as it was too far out from the centre of the city, and he said that at the head of the Grosvenor-road they had a large building (the old asylum) which, with judicious expenditure, could be converted into a hospital for infectious diseases which would meet the requirements of Belfast. Councillor O'Connell, M.D. R.U.I., was in favour of the Purdysburn site.

Belfast Ophthalmic Institution.

At the annual meeting of the supporters of the Belfast Ophthalmic Institution, Eye and Ear Hospital, it was reported that 1242 cases of eye disease, 375 cases of ear disease, and 275 cases of throat affections had been treated during the past year. There were 106 intern cases, which made the total number of cases treated 1998. An enlargement of the extern department—say, to cost £300—is much required. A legacy of £100 has been bequeathed to the hospital by the late Countess of Shaftesbury. Great satisfaction was expressed by all those taking part in the meeting that Dr. Walton Browne has now quite recovered after his long and serious illness. Financially there is a balance of £105 to the credit of the funds of the hospital.

April 4th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Legal Rights of a Woman in Child-bed.

HAS a pregnant woman the right to refuse operative aid proffered with a view of saving the life of her child? Such is the problem which has a lively interest for the whole medical profession and which formed the subject of Professor Pinard's first clinical lecture. His answer is in the negative, for the woman is not competent to discuss the nature of the proposed intervention. To leave the right of debating the matter to her is to sanction the legality of abortion, for it would be a fallacy to allow that a woman is culpable for having brought about the death of a fœtus only a few months old but that she is innocent if she practise fœticide at term. Neither has the husband the right to demand the death of the child in order to save the life of the mother. As regards this M. Pinard remarked that the famous *jus vitæ et necis* on which rests the argument that the father has the power of life or death over his child, arises from a wrong interpretation of Roman law. The Roman jurist gave the father the power of life and death over his children and also over his wife, but this only in case of some fault; now it is obvious that a fœtus cannot be capable of a fault. The practitioner in attendance has no right either moral or legal to practise embryotomy upon a living child. The right of this last to its life is a right so incontestable (*imprescriptible*) and sacred that no human power has the right to take it away. The need for sacrificing the life of the child to preserve that of the mother is a mere fable, for the operator never finds himself in such a dilemma. As an absolutely decisive argument it may be remembered that symphysiotomy which preserves the life of both mother and child gives a maternal mortality of 12 per cent., while craniotomy which kills the child gives a maternal mortality of 11·5 per cent.

Open Lectures by Women Doctors at the Faculty of Medicine.

Mlle. Bonsignorio, who is a Doctor of Medicine, applied for leave to give a free course of lectures upon Ophthalmology at the Faculty of Medicine, but the Conseil de l'Université has refused the application. She has therefore appealed to the Conseil d'État, maintaining that as a Frenchwoman of full age, and as having obtained honourable mention at the Faculty, she should have her application granted; more especially as women can already hold such courses at the Natural History Museum and at the Sorbonne. By the decree of July 21st, 1897, it is the Conseil de l'Université which makes regulations for free courses of lectures and the Conseil d'État has come to the conclusion that by this decree the Conseil de l'Université has the right of deciding whether or not such a course shall be allowed to be opened. The Conseil d'État has therefore dismissed the appeal and it follows that the Conseil d'État does not claim to have power to exercise a veto over any similar proceedings which the Conseil de l'Université may take. The decisions of the latter cannot be upset save in the case of some irregularity or violation of the forms prescribed by law.

Criminal Insanity.

Last year[1] I mentioned the case of a notorious murderer who after having assassinated and violated some dozen or so young persons whom he caught in lonely country places, was condemned to death and executed. This man, Vacher by name, feigned madness and a medico-legal expert inquiry was therefore constituted to examine into his case. The appointed experts—Dr. Lacassagne of Lyons, the well-known authority upon legal medicine, and Dr. Pierret, the neuropathologist — came to the conclusion that Vacher was quite responsible and he was executed accordingly, despite the protestations of certain medical men who saw proof of madness in the very enormity of his crimes. Among these was M. Laborde who made a minute examination of Vacher's brain. His conclusions which he recently communicated to the Academy of Medicine were as follows. He recalled the various points in the history of Vacher and laid stress as a pathologist upon the integrity of the brain, upon the regularity of the convolutions, upon the remarkable development of the third frontal convolution and upon the size of the ascending frontal and parietal convolutions especially at their bases. Vacher, it is well known, both spoke and wrote very well and his muscular powers were considerable. Thus the brain was anatomically normal but functionally abnormal. Vacher was therefore a criminal lunatic who might have been sent to an asylum, one specially for criminals if desired but certainly to an asylum, in preference to the guillotine. M. Otet reminded the Academy of the care with which Dr. Lacassagne and Dr. Pierret had carried out their examination. Vacher was very intelligent and was fully accountable both for his actions and for the consequences to himself which arose out of such actions. He was no lunatic, but a criminal. For himself he had no doubt whatever and he thoroughly believed in both the value and the absolute honesty of the conclusions of the experts. M. Laborde quite agreed as to the worth and the honesty of the experts' conclusions, but all the same he adhered to his own. Professor Fournier then intervened in the debate with the remark that such a discussion had elements of danger in it when conducted before a society so public and so much talked of as the Academy. He asked, therefore, that the debate should be held with closed doors, or at least that should the Academy desire it to be conducted publicly the experts whose conclusions were attacked should be invited to be present to take part in the debate and to defend themselves. It was most imprudent to have the populace as witnesses of such discussions, but some conclusion must certainly be arrived at. The Academy decided that Dr. Lacassagne and Dr. Pierret should be invited to answer the remarks of M. Laborde.

[1] THE LANCET, Jan. 14th, 1899, p. 127.

Methodical Percussion of the Cranium.

Professor Lannelongue recently communicated to the Academy of Medicine a remarkable paper by M. Gilles de la Tourette and M. Chipault with reference to a method of examining the cranium. In surgical operations on the cranium it is desirable to know as far as possible, before operation, the exact thickness of the walls of the skull. Anatomical researches have made us acquainted with the thickness of the walls in various regions, but these only apply to normal crania and give no information as to whether in any given pathological case the walls are thinner or thicker than the normal. M. Gilles de la Tourette and M. Chipault believe that they have found, in part at least, a way of solving this problem by means of methodical percussion of the skull. A little hammer may be used or preferably the finger. The best finger to use is the middle one of the right hand striking absolutely vertically. The hair should be parted or the head shaved. By the sound so produced the elasticity or resistance of the tissues can be estimated. The subject should always keep his mouth shut for variations in the sound produced depend in great measure upon whether the mouth be shut or open in varying degrees. If the mouth be shut, however, the tonality of the sound obtained varies directly with the thickness of the skull. The note is relatively clear in children and dull in adults, being more dull in men than in women, less dull in old persons, and clearer in the frontal and parietal regions than in the occipital region. These observations have been confirmed by operation. M. Gilles de la Tourette and M. Chipault have also established the fact that the continuity or the reverse of the walls of the skull exercises a marked influence upon the percussion note. In patients who have been trephined the note is clearer upon the trephined side. In two cases of old fracture where there had been slight loss of substance a regular cracked-pot note was obtained. If this observation was correct it will be possible to obtain a regular series of shades of tone to ascertain exactly the condition of the soft extra-cranial tissues, as to whether there be a gap or cicatrisation and the course and extent of the injury. In idiots or backward children, especially in those who suffer from hereditary syphilis, percussion also permits of the diagnosis of premature synostosis preventing the development of the brain. It thus gives indications for the operation of craniectomy recommended by M. Lannelongue in some of these cases.

April 2nd.

ROME.

(FROM OUR OWN CORRESPONDENT.)

Italian Hygiene at the Paris Exhibition.

ITALY is seizing the opportunity which is afforded by the Paris Exhibition to put in evidence the progress which she has made in public health, and all, or nearly all, her great cities are contributing to that world's show the statistics and other data by which the said progress is illustrated.

Rome, to begin with, has through her "Uffici d'Igiene e di Statistica Municipali" prepared a series of "tavole grafiche" embodying the data in question, and these, eight in number and most accurately drawn up, have just been exposed to view in the Capitol preparatory to their being sent to their ultimate destination. Three of the "tavole" describe the rate of mortality—one for diphtheria, typhoid fever, and small-pox, one for malaria, and one for tuberculosis. Of the others one has reference to the "movimento di mortalità" in general; one to that "movement" in relation to meteorological and demographic conditions; another to the mortality of children from birth up to one month and from one month up to five years. Of the last two "tavole" one gives the plan of the meat-shambles (*mattatoio*) which, it is well known, are among the most perfect in the world; the other gives the hygienic and economico-commercial report for 1899, from which it may be gathered that the daily quota of meat consumption in Rome averages 0·109 kilogramme per each inhabitant and the annual quota 39·925 kilogrammes. Other figures confirm the induction arrived at in other capitals that meat consumption is not proportioned to the increase in the population but to the material prosperity of the individual. The "tavole" exhibiting the mortality due to diphtheria, typhoid fever, and small-pox from 1871 to 1899 show a very great improvement. Diphtheria, which in the first years from 1871 onwards figures heavily, in 1893 is in sensible diminution; typhoid fever, from a mean of 90 per 1000, sinks for a series of years to a much smaller total, and, what is important, sinks uniformly and steadily in that direction; small-pox, again, which in the years immediately following 1871 reached enormous proportions, is proved, after obligatory vaccination, practically to have disappeared. Once more, the "tavola" denoting the death-rate from malaria, not only in the city but in the province of Rome, indicates for some years an appreciable decline, due certainly to the wider exhibition of quinine of a superior quality, while it also shows how the mortality is greatest among those not residing in the city. As much cannot be said for tuberculosis which maintains a high and steady death-rate. This malady, indeed, is the most formidable of those to which Italian flesh is heir, the "linea graphica" holding the highest and most constant position in the series and declaring itself (as yet) impregnable to the attacks which have reduced, if not exterminated, the others. As to the death-rate and birth-rate of Rome from 1702 to 1899, it is made manifest that in the later years the former has notably decreased while the latter has augmented. The "tavola" referring to the mortality in relation to meteorological and demographic conditions supplies a most instructive object lesson in the "ventennio" from 1880 to 1899. It is supplemented with an album containing 20 plates summing up the notifications day by day for every year. Most accurately compiled they enforce the consolatory truth that apart from tuberculosis, as already stated, the "movimento" of all other maladies affords irrefutable proof that the climatic and hygienic conditions of Rome are distinctly good—that, in short, "Roma non è malsana città." A concluding word is due to the authors of these splendid and most instructive "tavole." Their draftsman is Signor Benigni acting under the direction of Dr. Gualdi, the Commendatore Cocchi, and the Cavaliere Turchi, and with the coöperation of Signori Fracassini, Pellegrini, Montelli, and Giulio Prosperi.

Cacodylate of Soda.

Before the Royal Medical Academy of Turin a memoir has just been read and discussed on the use of cacodylate of soda in cases of chlorosis. The author (Dr. Bormans) concludes, from the studies he made in the San Giovanni Hospital, that the cacodylate is a remedy which may be tolerated in much larger doses than those usually given, and that therefore it will be found serviceable in all those cases in which large doses of arsenic are indicated. Moreover, in anæmia and chlorosis it may advantageously be substituted for iron when there is intolerance of the latter where there is no such intolerance, however, he finds that iron, hypodermically injected, yields the best results. Dr. Battistini dwelt on the untoward consequences occasionally found after the use of the cacodylate—pyrexia, for instance, and restlessness due to disturbance of the nervous system. Admitting the general conclusiveness and value of Dr. Bormans's findings, he would yet advise a certain caution in the exhibition of the remedy.

April 1st.

Obituary.

EDWARD DALZEL DICKSON, M.D. MALTA, M.R.C.P. LOND.

EDWARD DALZEL DICKSON, physician to the British Embassy at Constantinople, spent 60 years of his life in the Turkish capital and died there on March 29th at a great age. He was the elder son of Dr. John Dickson, R.N., a naval surgeon who served with Lord Nelson in the Baltic campaign and who afterwards received a political appointment at Tripoli. His mother was a daughter of Archibald Dalzel, a Governor of Cape Coast Castle, and was famous for her exertions to obtain the freedom of the Christian slaves in northern Africa, or Barbary as it was then called. Edward Dalzel Dickson was born at Tripoli in 1816 and was educated for the medical profession at the University of Malta. Immediately upon graduating—i.e., in the year 1837—he was appointed physician and cancellier to the British Consulate at Erzeroum. He held this post for three years and then was employed at Constantinople on the recovery of British claims on the Regency of Tunis, and in 1846 accompanied the late Mr. Alison on special service to Mikalitch. He was appointed physician to Her Majesty's Embassy at Constantinople on Dec. 30th, 1856, and held the post until his death, that is, for 44 years, during which time he made the personal acquaintance and gained the esteem of all his countrymen whose duties called them to Turkey. Dr. Dickson was British delegate to the Central Board of Health in 1861 and in 1866 was chosen third commissioner at the International Conference held in Constantinople to inquire into the best means of preventing the spread of cholera from Asia into Europe. A year later he was named British delegate to the Mixed Commission for revising the Ottoman Quarantine Tariff, an appointment which acknowledged his intimate acquaintance with Oriental life and character; and in 1874 he attended the Sanitary Congress at Vienna as a British delegate. At the time of the suicide of the ex-Sultan Abdul Aziz Dr. Dickson came into prominent notice, as his evidence helped largely to disprove the widely spread rumour that the deposed monarch had been murdered, but otherwise his work was done in so unassuming a manner that his name was but little known to his professional brethren in this country. He was a Member of the Royal College of Physicians of London, a member of the Epidemiological Society and of the Obstetrical Society of Edinburgh, and was an occasional contributor of papers to the Transactions of these bodies.

Dr. Dickson was buried on March 29th. The funeral service was performed at the Embassy chapel and the body was interred at the British cemetery at Scutari before a large number of persons anxious to show their appreciation of his faithful services, both official and private, to British interests in a foreign land extending over 60 years.

HADLEY CHARLES JACKSON, L.R.C.P. LOND., M.R.C.S. ENG.

BY the death of Mr. Hadley C. Jackson in Uganda in his thirtieth year the Protectorate Service loses one of its most promising medical officers. Fourth son of the late Charles Hamilton Jackson, Administrator-General and Island Secretary of Jamaica, he was born at Spanish Town on Oct. 4th, 1871. He gained the Jamaica Scholarship at the High School, and on coming to England, matriculated at University College, afterwards receiving his medical education at University College Hospital. His original intention was to enter the Army Medical Service, but an opportunity offering itself of taking medical charge of an exploring expedition in Northern Rhodesia he embraced it, and there earned the golden opinions of his comrades and followers by his indomitable courage and devotion to duty throughout a most perilous and adventurous journey. In August last, having accepted a post in the Uganda Protectorate Service, he started upon his ill-fated journey, and after greatly distinguishing himself in command of one of the columns sent on a punitive expedition against a hostile tribe, fell a victim to fever—to which he succumbed on Feb. 16th. In a letter directed to be sent to his family by Lord Salisbury the following passage occurs in reference to the news of his death: "Lord Salisbury has received the

intelligence with very great regret, as Dr. Jackson had every qualification for success in his new career, and was one of the best men who have lately been sent out. I am to express to you his lordship's sincere condolence." A clever, brave man, true as steel, and a genial and courteous gentleman, poor Hadley Jackson leaves behind him a host of sorrowing friends to mourn his premature death.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board in the subjects indicated:—

Monday, April 2nd:

Anatomy and Physiology.—Arthur Edwin Fiddian, Robert Vachell de Acton Redwood, and Alfred Cuthbert Story, Students of University College of South Wales, Cardiff; John D'Ewart and Harry Bentley, Owens College, Manchester; Hoyland Smith and Charles Ernest Wheatley Lyth, University College, Sheffield; Fred Yates, St. Mungo's College, Glasgow; Thomas St. John Barry, Lawrence Twemlow Booth, University College, Liverpool; Mervyn Turberville Whitehouse, Mason University College, Birmingham; Alexander Moxon Webber, Guy's Hospital; William Gillitt, Middlesex Hospital; Charles Frederick Hardie, Cambridge University and University College, London; Charles William Tuthill Woods, Cambridge University and St. Georges Hospital; George Cuthbert Adeney, St. Thomas's Hospital; William Lawrence Hawkins, King's College, London; William Emerson Lee, Cambridge University and St. Bartholomew's Hospital; Christian Cathcart Robinson and Arthur Hamilton, St. Bartholomew's Hospital; George Henry Rodolph, London Hospital; Louis Leopold Thomson, St. Mary's Hospital.

Physiology only.—Mr. Ernest William Toulmin, St. Mary's Hospital.

12 gentlemen were referred in both subjects and one in physiology only for three months.

Tuesday, April 3rd:

Anatomy and Physiology.—Walter Henderson Scott, St. Bartholomew's Hospital; Neville Ivens Spriggs, Edwin Henry Britton Milsom, William Frederick Box, Geoffrey Carlisle, Sidney Clement Bowle, and Harold Charles Winckworth, Guy's Hospital; Francis Broughton Shettle and Charles John Hope Gunning, St. George's Hospital; Robert Jones, Edinburgh University and St. Mary's Hospital; Alfred Lancelot Jones, St. Mary's Hospital; Henry Richmond Minkley, St. Mary's Hospital and Mr. Cooke's School of Anatomy and Physiology; Henry Strawson Turner, King's College, London; James Armstrong Kilpatrick, University College of South Wales, Cardiff, and King's College, London; Henry Stagg Bennett, Lionel Swinton Hooper, Frederick William Weeks Smith, and Edward Lawton Moss, St. Thomas's Hospital; Geoffrey Seccombe Hett and Frederick Hugh Alexander, University College, London; Robert Archibald Slater Sunderland, St. Bartholomew's Hospital; Archibald Gates Payne and Frederick James Pierce, Charing Cross Hospital; William Bain and Ivor Davenport Jones, Middlesex Hospital; and James Alexander Milne, London Hospital.

Ten gentlemen were referred in both subjects for three months.

VICTORIA UNIVERSITY.—At the degree ceremony held on March 30th the following candidates were presented:—

Bachelor of Medicine and of Surgery.—First-class Honours: Charles John Nepean Longridge, St. George's Hospital. *Second-class Honours:* Albert Ernest Finney, Owens.—Thomas Percy Allen and William Edward Bamber, M.Sc., Owens; William Henry Broad, University; Harry Howard Bywater, Owens; Sidney Smalbroke Depree, University; William Alexander Helm, Edward Falkner Hill, John Frederick Hodgson, Henry Holt, and Samuel King Hutton, Owens; Frederic Thomas Alexander Lovegrove, University; Frederick Alexander Morrison, Owens; William Harold Morrison, Yorkshire; and Harry Scholefield, Owens.

At examinations held in March in the Faculty of Medicine the following candidates were successful:—

FINAL EXAMINATION.

Part I.—Granville Ainsworth, Owens; E. W. Anderton, Yorkshire; M. B. Arnold, Owens; J. L. Beddoes and J. H. Billing, University; George Binns, Owens; J. W. H. Brown, Yorkshire; Fred Bullough, Owens; R. T. Forster, Yorkshire; J. P. Good, Walter Hickey and James McIlraith, Owens; A. F. Martin and Edwin Saville, Yorkshire; *Harry Slater, Owens; J. H. Sutcliffe, Yorkshire; George Taylor, Herbert Terry, Thomas Tierney, W. H. Tomlinson, J. W. Watson, and H. M. Williamson, Owens; F. P. Wilson, University; and W. J. Woodyatt, Owens.

SECOND EXAMINATION

A.—Anatomy and Physiology.—Alexander Anderson, Yorkshire; J. W. Anderton, Owens; Roy Appleton, Yorkshire; J. B. Barnes, Owens; H. M. Berry and J. P. Bligh, University; *L. R. Braithwaite, Yorkshire; Walter Briggs, G. H. Brown, and G. G. Buckley, Owens; Alexander Burkhard, Yorkshire; *A. G. Christian, B. H. Cox, A. J. Edmonds, R. B. Fletcher, A. H. Gregson, and P. T. Harding, Owens; J. L. Hawkes, University; F. W. Hayes, Yorkshire; H. E. Heapy, University; Alexander Hodgkinson, Owens; A. S. Hopper, University; Arthur Howard, J. R. Hutchinson, and A. E. Johnson, Owens; J. A. Johnson and C. O. Jones, University; J. A. Jones, Owens; G. W. N. Joseph, University; W. G. Kinton, Owens; R. E. Knowles, University; R. G. M. Ladell, Yorkshire; A. W. Latham, Owens; J. A. Longley, Yorkshire; Joseph Longworth, Owens; Harry Maffin, M. B. Potts, and A. H. Radcliffe, Yorkshire; W. B. Rothwell and F. W. Schofield, Owens; P. K. Steele, Frank Sugden, and Bertram Suggit, Yorkshire; S. W. Swindells and A. P. Thompson, Owens; A. B. S. Todd, Yorkshire; A. B. Townley, F. E. Tylecote, David Walker, and T. B. Wolstenholme, Owens; H. F. Woolfenden, University; W. S. Wrigley, Owens; and F. W. B. Young, Yorkshire.

B.—Materia Medica and Pharmacy.—John Brunskill, Owens; L. T. Chadwick, Yorkshire; Alexander Cran, Robert Haslam, and R. W. Henstock, Owens; A. G. Jackson, University; C. P. Lapage, H. F. Lee, J. Longworth, J. H. Nichol, G. G. Parkin, and W. B. Ramsden, Owens; J. O. Sergeant and Frank Sugden, Yorkshire; A. B. Sykes, University; A. B. S. Todd, Yorkshire; A. E. Townley, Owens; G. F. C. Walker, University; and S. A. Winstanley, Owens.

* Awarded University Scholarship.

AT the annual meeting of the subscribers and friends of the Leicester and District People's Dispensary last week Mr. C. F. Bryan was re-elected Vice-President. The report for the past year was of an eminently satisfactory character, the receipts, including members' payments, amounting to £1373 5*s.* 8*d.*; medical fees and druggists' charges absorbed £1148 10*s.* 9*d.* of the amount.

CHELTENHAM GENERAL HOSPITAL.—The annual meeting of the subscribers and friends of this institution was held on March 21st, under the presidency of Colonel Croker-King. The medical report stated that 804 in-patients and 4771 out-patients had been treated during the year, and at the branch dispensary 3835 patients had been attended. The financial statement was satisfactory, but showed that although subscriptions had increased donations and legacies had fallen off. A new wing had recently been added to the hospital and a room fitted up for Roentgen ray work and an ophthalmic room provided. The average cost of each in-patient was £4 14*s.* 2*d.* and of each out-patient 3*s.* 5½*d.* Colonel Croker-King was re-elected president.

BRISTOL ROYAL INFIRMARY.—The annual meeting of the subscribers and friends of this institution was held on March 27th under the presidency of Sir C. D. Cave. The report stated that 3087 in-patients and 39,883 out-patients had been treated during 1899, the numbers for 1898 being 2969 and 40,504 respectively. The financial statement showed that the total ordinary income amounted to £11,479, against £9913 in 1898, and the total ordinary expenditure to £14,393, against £14,218 in 1898. The committee state that the total deficit of the infirmary is now £12,926 and add that unless more subscriptions are received they may be compelled to close some of the wards. Sir C. D. Cave was re-elected president.

WAR PICTURES.—The London public will not have to wait long to hear an account of Lord Roberts's successful march through the Orange Free State, the relieving of Kimberley, the pursuit of Cronje and his surrender, and the occupation of Bloemfontein. Taking advantage of the lull in the operations some of the correspondents are returning to England for a short time. Mr. Frederic Villiers, the well-known war artist, whose excellent sketches have been appearing in the *Illustrated London News*, is among these. During his brief stay Mr. Villiers will give an account of his experiences in the St. James's Hall on April 19th. In the course of the lecture he will show a large number of slides mostly from hitherto unpublished "snapshots."

ROYAL INSTITUTION.—Professor J. Arthur Thomson delivered the Friday evening discourse at the Royal Institution on March 30th, the subject being "The Facts of Inheritance." The physical basis of inheritance, he said, was the interaction of the sperm-cell and the ovule, resulting in the fertilisation of the latter. According to the theory of pangenesis representative gemmules given off by the cells of the body were supposed to find their way to the reproductive elements and thus to make the offspring like the parent. The theory of germinal continuity, to which preference was now generally given, was to the effect that a part of the germ plasm contained in the germinal cells entered into the formation of the germ-cells of the following generation. The different degrees of hereditary resemblance and Galton's law of ancestral inheritance were discussed, and in conclusion attention was drawn to the advantages of the careful mating of parents and the benefits that might be obtained by proper nurture of the offspring.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—Fellowship Examination: Mr. Thomas Joseph O'Donnell, L.R.C.S. Irel., Ooregum, Mysore State, India, having passed the necessary examination, has been admitted a Fellow of the College.

THE MILITARY HOSPITAL, DEVONPORT.—The work of erecting the new buildings of the Military Hospital, Stoke, is already well advanced; one of them is ready for occupation and the remainder will soon be finished. The new buildings, or huts, of which there will be nine, are being erected in portable sections, so that they can be removed to another site if required. Notwithstanding this feature of their construction they are of a substantial character and internally resemble in every respect an ordinary hospital ward. Each hut will be 70 feet long with a breadth of 20 feet 7 inches, and will accommodate 16 patients, with separate rooms for attendants and other purposes. The system of ventilation adopted is that by which a revolving ventilating-tube will run the whole length of the roof.

VOLUNTEER MEDICAL ORGANISATION.—Surgeon-General Evatt gave an interesting address at the Guildhall, Exeter, on March 26th, upon the medical organisations with the forces whilst on active warfare. He stated that although there were 230,000 Volunteers in England there was not a corps that had a proper transport or medical service. In several towns volunteer medical staff corps had been organised and he hoped to see the system extended. Surgeon-Lieutenant-Colonel J. R. Thomas, in proposing a vote of thanks to the lecturer, said that the Volunteers ought to have in readiness that part of their organisation which would have the duty of dealing with the wounded. There were two alternatives before them—one to form a branch of the Medical Staff Corps, and the other to form a bearer company on the strength of the regiment to be effectively organised. He favoured the latter, as it was a task more easily to be compassed, but they required the assistance of the Government in the matter and the public must compel the Government to do what was necessary.

THE HOSPITAL SATURDAY FUND.—The Hospital Saturday Fund, of which Sir Savile Crossley, Bart., has recently been elected chairman, has issued its twenty-sixth annual report. It states that the year 1899 was one of steady progress. Notwithstanding the fact that it was only the second year since the abolition of the annual street collection and that in the last quarter the many claims of the sufferers by the war in South Africa might have accounted for some considerable diversion of income, the total amount received was £20,013, being £951 in excess of the income for 1898 and only £125 less than the amount collected in 1897, the last year of the street collection. The total sum raised through the influence of the local committees in 1899 was £1473, as against £1117 in 1898. The total sum distributed for 1899 was £17,013, leaving a balance at the bank of £1013. 36 general hospitals received £6547, 60 special hospitals received £4989, and 78 miscellaneous institutions received £5477. The expenses of management amounted to £2191, or rather less than 11 per cent. of the gross receipts. This percentage is lower than in any previous year.

THE MEDICAL GOLF TOURNAMENT.—The Tournament for 1900 will not be decided by match play as in previous years, but to meet the wishes of many players it will be held under medal play regulations at a one-day meeting, competitors being divided into two classes: Senior, with handicaps of 12 and under; Junior, with handicaps of over 12. The date is fixed for Thursday, May 10th, and by the kind permission of the Wembley Golf Club the tournament will be played on their links at Wembley, to which frequent trains run from Baker-street Station. The following regulations have been arranged by the committee. Competitors may play over the course before playing their medal round which must be started by 3 P.M. Members of the home green must deduct two from this handicap. There will be a first and second prize and a prize for the best score over the last nine holes in each class. The entrance fee, 5*s.*, to be sent, with name and statement of the competitor's lowest handicap, not later than May 7th, to the honorary secretary Mr. Rolf Creasy, Windlesham, Surrey. Foursomes will be arranged in the afternoon—Consultants *v* Practitioners—and gentlemen wishing to play in these should notify the same to the honorary secretary when sending their entrance fee.

Parliamentary Intelligence.

HOUSE OF COMMONS.

THURSDAY, MARCH 29TH.

The Proposed Lunacy Laboratories.

Mr. JOSEPH A. PEASE asked the Home Secretary what class of research it was intended should be carried out in the laboratories which it was proposed might be provided and maintained in connexion with lunacy in Clause 22 of the Lunacy Bill; what was the character of the certificates it was intended to grant to licensees at such laboratories; and whether the number of such laboratories were to be limited in number.—Sir MATTHEW WHITE RIDLEY replied: I have no information leading me to believe that the research for which the laboratories may be established will involve any necessity for either licences or certificates; but I am in communication with the Lunacy Commissioners on the subject.

Prison Dietary.

Mr. SEALE-HAYNE asked the Home Secretary whether the recommendations of the Dietary Committee in regard to the diet of prisoners in Dartmoor and other convict prisons had been carried out, and, if not, would he give this matter an early and favourable consideration?—Sir MATTHEW WHITE RIDLEY replied: I have postponed the introduction of a new permanent dietary for convict and local prisons pending careful observation which has been continued during the past year upon the effect of the changes already introduced in the dietaries of local prisons. I hope shortly to be in a position to lay on the table of the House new scales of dietary for both convict and local prisons based upon the suggestions contained in the report of the recent Dietary Committee.

The Conduct of Private Lunatic Asylums.

Sir MANCHERJEE BHOWNAGGREE asked the President of the Local Government Board whether any cases had been recently brought to his notice of the proprietors of some private lunatic asylums having offered commissions to relieving officers; and, if so, would he state particulars regarding such cases, and what steps he intended taking regarding the same?—Mr. CHAPLIN replied: The attention of the Local Government Board has been drawn to cases of the kind referred to in the question. They are in communication with the Lunacy Commissioners with regard to the precise course which should be adopted in the matter.

The Royal Army Medical Corps.

Dr. FARQUHARSON asked the Under Secretary of State for War whether lieutenant-colonels of the Royal Army Medical Corps who were doing colonel's work could receive the rank and pay of the higher grade in which they were temporarily serving.—Mr. WYNDHAM replied: The regulations do not provide for the case of these officers and it is being specially considered.

The London Water Question.

After a debate of considerable length the House rejected by 234 to 151 votes the Bill of the London County Council for acquiring the water undertakings in the metropolis. Mr. CHAPLIN, speaking for the Government, opposed the Bill on the ground that it was inconsistent with the report of the Royal Commission, which, while recommending purchase, said the London County Council should not be the water authority. The other Bill of the London County Council—that for the sanction of the scheme for bringing a supply of water to the metropolis from Wales—was also discussed, but in view of the decision on the Purchase Bill it was not pressed to a division.—Mr. SYDNEY BUXTON pointed out that the whole responsibility of dealing with the water-supply of London now rests upon the shoulders of the Government.

The Employment of Children in Coal Mines.

On the motion of Sir CHARLES DILKE a Bill was read a second time to prohibit the employment of child labour underground in coal mines.

FRIDAY, MARCH 30TH.

The Vaccination Question.

On the motion of Mr. PICKERSGILL a Bill was introduced to declare the law that no vaccination prosecution shall be commenced without the authority of the guardians.

Physical Drill in Schools.

Sir JAMES FERGUSSON at this sitting of the House raised the question of the importance of instituting physical and military drill for boys in all state-aided and rate-aided schools.—Mr. YOXALL, speaking from practical knowledge of the system, said that physical drill was carried on as far as was necessary for the welfare of the children and expressed the opinion that if it were pressed further and made compulsory there would be danger of a revulsion against it.—Sir JOHN GORST said there were two questions to be considered. One was the question of physical training and the other was how far that physical training should have a military character. The Education Department had practically made physical training compulsory upon all schools, because it was a condition, without which the higher grant could not be obtained, that suitable physical exercise was to be taught in every school. There was nothing whatever in the new code to alter the practice which had prevailed for a great many years. Of course, the very best kind of physical exercise for children was to be found in games, but where the conditions were not favourable for games the Education Code required that there should be Swedish drill, gymnastics, military drill, or some other form of physical training. The code of the present year, more than the codes of previous years, left everything to the local managers of schools. The principle of the block grant was that the Department at Whitehall allowed local managers of schools to decide what was the best course of instruction to adopt. It was not only military and physical drill that had disappeared from the code, but everything else had disappeared which was calculated to dictate to the local managers the particular course of instruction which they were to observe. But the instructions to inspectors were not altered. The curriculum practised in the schools must be one which the inspectors approved *cf.* Those instructions would practically compel every school to have such

physical exercises as were suitable to the conditions of the school and were practicable under the circumstances. Then there was the question whether they could give to that drill a military character. He thought in that matter the Education Department had left, and were anxious to leave, the local managers to their own discretion. In the first place, military drill was absolutely impossible in a great number of schools. How could they possibly, in a village school where there were 30 or 40 children under one woman teacher with a girl monitress, have military drill unless the lady were an Amazon? In Portsmouth, in London, and in the great towns military drill was very common, but it was quite clear that it would be impossible for the Education Department to make the system compulsory. It would probably defeat its own end, because when they tried to compel teachers to take a course which they had been accustomed to adopt on their own discretion they rather resented it and were less inclined to have military drill. If he thought there was anything more that could be done to show the strong feeling which the Education Department had in favour of physical exercises as an absolutely essential part of the training of the child, quite as beneficial to them as reading, writing, and arithmetic, and quite as necessary for them, he should be most happy to do it. But he thought the system as established was satisfactory. He believed that every school and every set of school managers were quite alive to the importance of this matter, but as far as the military character of the drill was concerned that must be left, and could only be left, to the discretion of the local managers.

MONDAY, APRIL 2ND.

The Medical Profession and the War.

Mr. WEIR asked the Under Secretary of State for War if he would state the highest and lowest remuneration to be paid to army medical officers engaged in the war in South Africa out of the £15,000 provided in the Supplementary Estimates for pay of Army Medical Service and the highest and lowest remuneration to be paid to civilian medical practitioners engaged in the war in South Africa out of the £50,000 provided in the Supplementary Estimates for pay of civilian medical practitioners; and would he also state how many civilian medical practitioners offered their services gratuitously, and if so, were any accepted.—Mr. WYNDHAM: The highest rate of pay and allowances drawn by officers of the Army Medical Staff in South Africa is £1752 per annum, and the lowest rate is £336 17*s.* 6*d.* The remuneration of all civil medical practitioners in South Africa, except consulting surgeons, is £423 17*s.* 6*d.* a year; consulting surgeons are paid at the rate of £5000 a year. Considerably over 3000 applications have been received from medical men for employment in South Africa, but no record has been kept to show how many offered their services gratuitously. The gratuitous services of Sir Thomas Fitz-Gerald and of the late Dr. Grigg were offered and accepted.

The Lunacy Board in Scotland.

At this sitting the House debated the motion for the second reading of the Lunacy Board (Scotland) (Salaries, &c.) Bill. The LORD ADVOCATE in a long speech explained how the work of the Lunacy Board in Scotland has increased from year to year, and how it has become necessary that the two paid medical commissioners shall devote more time to the medical part of their duties, and how in this Bill it is proposed that a sum not exceeding £500 a year shall be set aside for remuneration to be divided among the three at present unpaid Commissioners—namely, the Chairman of the Board and the two legal members. The Lord Advocate stated that while in 1858 there were in lunatic asylums in Scotland 4020 patients and in private dwellings 1804, the numbers had risen in 1878 to 7604 and 1493 respectively, and in 1898 to 12,139 and 2767, and that the patients in the asylums are visited individually twice a year by the medical Commissioners, those in private dwellings being visited by the deputy Commissioners.—Several Members of the House objected to the proposed method of securing extra assistance and paying for it and at the close of the debate the LORD ADVOCATE undertook to see whether a better method could not be devised. On this understanding the Bill was read a second time.

TUESDAY, APRIL 3RD.

The Nursing Staff in South Africa.

Mr. GEORGE WYNDHAM, replying to Mr. Weir, said that the total number of nurses employed in South Africa was 514 at rates of pay varying from £30 a year with allowances in the case of the Army Nursing Service, to two guineas a week in the case of those employed locally or accompanying invalids home. About 2000 applications for such employment were received, but no record had been kept to show how many offered their services free of charge.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

ALLEN, MABEL R. DEXTER, M.B. Lond., has been appointed House Surgeon to the Oxford Eye Hospital.

ANDERSON, J., M.D. Aberd., has been appointed Health Officer for the Shire of Heytesbury, Victoria, Australia.

ASHFORD, WILLIAM, L.R.C.P. Lond., M.R.C.S., Assistant House Surgeon to the Royal Devon and Exeter Hospital, has been accepted for service with the South African Field Force, and sailed this week.

BALDWIN, ASLETT, F.R.C.S. Eng., has been appointed Acting Assistant Surgeon to the West London Hospital.

BANKS, WILLIAM, M.B. Lond., M.R.C.S., has been re-appointed Honorary Surgeon to the Falmouth Hospital.

BARRETT, W. A. H., L.R.C.P. Lond., L.R.C.S. Edin., has been appointed Public Vaccinator at Portarlington, Victoria, Australia.

BOND, FRANCIS THOMAS, M.D. Lond., M.R.C.S., F.R.S. Edin., has been re-appointed Medical Officer of Health by the Chipping Sodbury Board of Guardians and District Council.

BULLMORE, CHAS. CECIL, L.R.C.P. & S. Edin., L.F.P.S. Glasg., has been re-appointed Honorary Surgeon to the Falmouth Hospital.

CHALMERS, D. A., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Military Surgeon at Castlehill Barracks, Aberdeen, vice Surgeon-Lieutenant-Colonel Macartney.

DARBY, W. J., L.R.C.S. Irel., has been appointed Surgeon of H.M. Prison at Auckland, New Zealand.

FISHER, T. C., M.D. Dub., has been appointed Government Medical Officer and Vaccinator at Bowral, New South Wales.

GOW, W. B., M.B., Ch.M. Edin., has been re-appointed Medical Superintendent of the Lunatic Asylum, Wellington, New Zealand.

HARE, F. W. E., M.D. Durh., M.R.C.S., has been appointed Inspector of Charitable Institutions in Queensland.

HARRIS, ARTHUR B., M.D. St. And., M.R.C.S., L.S.A., L.R.C.P. Edin., J.P., has been re-appointed Honorary Surgeon to the Falmouth Hospital.

HOLMES, L. S., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Consulting Surgeon to the General Hospital, Launceston, Tasmania.

HUNT, J. S., L.R.C.P. Edin., M.R.C.S., has been appointed Acting Assistant Health Officer at Brisbane; Acting Medical Superintendent of the Dunwich Benevolent Asylum; Acting Medical Officer for the Supervision of Lepers in the Lazaret, Stradbroke Island; and Acting Superintendent of the Inebriates Institution at Dunwich, Queensland.

JOHNSON, HENRY SANDFORD, M.R.C.P. Irel., L.F.P.S. Glasg., has been re-appointed Medical Officer of Health for the Totnes Rural District Council.

JONES, J., M.D., B.S. Lond., has been appointed Civil Surgeon to H.M. Forces in South Africa.

JOHNSTONE, JAMES PIERCE, L.R.C.P., L.R.C.S., L.M. Edin., has been appointed Deputy Medical Officer of Health for Langport (Somerset).

JUDE, F. J., M.B., C.M. Edin., has been appointed a Public Vaccinator for South Australia.

KELSALL, H. T., M.D. Lond., L.R.C.P., M.R.C.S., has been appointed Honorary Consulting Ophthalmic Surgeon to the Education Department, West Australia.

LANGDON, J. A., L.R.C.P. Edin., L.F.P.S. Glasg., has been appointed District Medical Officer at Wagin, West Australia, and Public Vaccinator for the District.

LANYON, GEORGE EDWARD, M.B., C.M. Edin., has been re-appointed Honorary Surgeon to the Falmouth Hospital.

LONGFORD, J. M., L.R.C.P., L.R.C.S. Irel., has been appointed Resident Assistant Medical Officer to the Workhouse and Assistant Medical Officer to the Cottage Homes by the Ashton Board of Guardians.

LORD, S. T., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer by the District Council of Castleton.

MACDONNELL, E. R. A., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been re-appointed Medical Officer for the Litcham Sanitary District of the Milford and Launditch Union.

MACKAY, H. J., M.D. Edin., has been appointed Certifying Surgeon under the Factory Acts for the Borough and Rural District of Devizes.

MCKEAGUE, JOHN, L.R.C.P. & S. Edin. (Civil Surgeon) has been appointed by the War Office to the Station Hospital, Fulwood Barracks, Preston.

MACMILLAN, J. G., M.B., Ch.M. Edin., has been appointed Officer of Health for the Shire of Wimmera, Victoria, Australia.

MILLIGAN, W. ANSTRUTHER, M.A., M.B., C.M. Aberd., F.R.C.S. Edin., has been appointed Assistant Anæsthetist to the Great Northern Central Hospital, Holloway-road, London.

O'DOHERTY, R. H., L.K.Q.C.P. Irel., M.R.C.S., has been appointed Acting Medical Superintendent of the Quarantine Station, Peel Island; Acting Public Vaccinator; Acting Official Visitor to the Hospital for the Insane at Goodna; and Acting Official Visitor to the Reception House at Brisbane, Queensland.

ORR, VIVIAN B., M.B., B.S. Melb., M.R.C.S., L.R.C.P. Lond., has been appointed Senior House Surgeon to the Westminster Hospital, S.W.

OWEN, JAMES F. H., L.R.C.P. Edin., M.R.C.S., has been re-appointed Honorary Surgeon to the Falmouth Hospital.

PARDEY, J. M., M.B., Ch.B. Melb., has been appointed Honorary Consulting Surgeon to the General Hospital, Launceston, Tasmania.

PARKER, C., M.B., Ch.M. Edin., has been appointed Honorary Consulting Surgeon to the General Hospital, Launceston, Tasmania.

PIKE, C. J., M.B. Lond., M.R.C.S., has been appointed Honorary Consulting Surgeon to the General Hospital, Launceston, Tasmania.

RITCHIE, R. H., M.B., Ch.B. Melb., has been appointed Public Vaccinator at Horsham, Victoria, Australia.

ROGERS, R. S., M.D. Edin., has been appointed a Member of the State Children's Council, Adelaide, South Australia.

SCHLINK, R. H., M.D. Berl., has been appointed Officer of Health for the Shire of Wodonga, Victoria, Australia.

SIMONS, C. N., L.R.C.S. Irel., L.S.A. Lond., has been appointed Government Medical Officer and Vaccinator at Campbelltown, New South Wales.

SOUTHEY, A. J., M.R.C.S., has been re-appointed Medical Officer of Health by the Eton Urban District Council.

WATSON, A. E., L.R.C.P. Lond., M.R.C.S., has been appointed Certifying Surgeon under the Factory Acts for the Borough of Torquay, the Urban Districts of Cockington and St. Mary Church, and the Civil Parish of Stoke-in-Teignhead, in Newton Abbot Rural District.

WEST, W. A., L.K.Q.C.P., L.R.C.S. Irel., has been appointed Resident Medical Officer to the Sydney Hospital, New South Wales.

WOLFHAGEN, J. E., M.B., Ch.M. Edin., has been appointed Honorary Medical Officer to the Hobart General Hospital, Tasmania.

WYCHE, E. M., L.R.C.P. Lond., M.R.C.S., has been appointed Certifying Surgeon under the Factory Acts for the Civil Parishes of Haddenham, Wilburton, Stretham, Grunty Fen, Wentworth, Sutton, Mepal, and Witcham.

Vacancies.

For further Information regarding each vacancy reference should be made to the advertisement (see Index).

BATH ROYAL UNITED HOSPITAL.—Resident Medical Officer for three years. Salary £100 per annum, with board, lodging and washing.

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL, Birmingham.—House Surgeon, tenable to Oct. 31st next. Salary at the rate of £60 per annum, with board, lodging, and washing.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon, unmarried. Salary £150 per annum, with an allowance of £30 a year for cab hire, and furnished rooms, fire, lights, and attendance.

BOOTLE BOROUGH HOSPITAL, Liverpool. — Junior Resident House Surgeon. Salary £60, with board, washing, and lodging.

CARDIFF INFIRMARY.—Assistant House Physician for six months. Salary at the rate of £50 per annum, with board, washing, and apartments.

CORWEN UNION.—Medical Officer and Public Vaccinator for the Western District of the Union. Salary, as Medical Officer, at the rate of £20 per annum, with certain extra fees. Subject to statutory deductions. Apply to the Clerk, Union Offices, Corwen.

COUNTY BOROUGH OF WEST HAM LUNATIC ASYLUM.—Superintendent. Asylum now in course of erection at Chadwell Heath, Essex. Salary £600 per annum, with unfurnished house, light, washing, and garden produce. Apply to the Town Clerk, Town-hall, West Ham, E.

CUMBERLAND AND WESTMORLAND ASYLUM, Garlands, Carlisle.—Junior Assistant Medical Officer, unmarried. Salary £100 a year, with board and residence.

DENTAL HOSPITAL OF LONDON AND LONDON SCHOOL OF DENTAL SURGERY, Leicester-square.—Demonstrator. Honorarium £50 per annum.

DOWN (COUNTY) DISTRICT ASYLUM, Downpatrick.—Assistant Medical Officer, unmarried. Salary £100 per annum, with furnished apartments, board, washing, and attendance.

DUMFRIES AND GALLOWAY ROYAL INFIRMARY, Dumfries.—House Surgeon. Salary £50 per annum, with board and washing. Also Assistant House Surgeon. Board and washing provided.

GENERAL AND EYE HOSPITAL, Swansea.—House Surgeon for twelve months. Salary £50 per annum, with board, apartments, washing, and attendance.

GENERAL INFIRMARY at Leeds.—Resident Medical Officer. Salary £100 per annum, with board, residence, and washing.

GREAT YARMOUTH HOSPITAL.—House Surgeon. Salary £90 per annum, with board, lodging, and washing.

HEREFORD GENERAL INFIRMARY.—Junior House Surgeon for six months, unmarried. Salary £17 10s., with furnished rooms, board, washing, gas, and attendance.

HOSPITAL AND DISPENSARY, NEWARK-UPON-TRENT.—House Surgeon, unmarried. Salary £80 per annum, with board and lodging in the Hospital.

HOSPITAL FOR WOMEN, Soho-square (The London School of Gynæcology).—Clinical Assistantships.

HOSPITAL FOR WOMEN AND CHILDREN at Leeds.—Non-resident House Surgeon for six months. Salary at the rate of £125 per annum.

INFIRMARY FOR CONSUMPTION, Margaret-street, London.—Pathologist. No salary.

KIDDERMINSTER INFIRMARY AND CHILDREN'S HOSPITAL. — House Surgeon, unmarried. Salary £140, increasing annually by £10 to £170, with rooms in the Infirmary and attendance. Option of board at £40 per annum.

KING'S COLLEGE, London.—Obstetric Registrar and Tutor at King's College Hospital. Also Professorship of Materia Medica and Pharmacology.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary £85 per annum.

LEICESTER INFIRMARY.—Assistant House Surgeon for 12 months. Salary £80 per annum, with board, apartments, and washing.

LINCOLN HOSPITAL FOR THE INSANE, Lincoln.—Assistant Medical Officer. Salary £100.

LINCOLN UNION.—Medical Officer for the Workhouse at Lincoln. Salary £70 per annum, with certain perquisites. Applications to the Clerk, Lincoln.

MANCHESTER SOUTHERN AND MATERNITY HOSPITAL.—Resident House Surgeon. Honorarium at the rate of £50 per annum, and board.

MORPETH DISPENSARY.—House Surgeon, unmarried. Salary £106 per annum, with furnished rooms, coals, gas, and attendance.

NORTHAMPTON GENERAL INFIRMARY.—Assistant to the House Surgeon for six months. Board, lodging, and washing provided, and an honorarium of £25 given for that term.

NORTH RIDING COUNTY ASYLUM, Clifton, York.—Senior Assistant Medical Officer, unmarried. Salary £150, rising to £200, with board, apartments, washing, and attendance.

PARISH COUNCIL OF UIG, Island of Lewis.—Medical Officer and Public Vaccinator. Salary £200, exclusive of certain fees. Applications to the Chairman of the Parish Council.

PARISH OF LIVERPOOL.—Assistant Medical Officer for the Workhouse, Brownlow Hill. Salary £80 per annum with rations. An additional sum of £20 being allowed for examining applicants for out-door relief. Subject to superannuation deductions. Apply to the Vestry Clerk, Parish Offices, Brownlow Hill, Liverpool.

PARISH OF ST. GILES, Camberwell, London.—Assistant Medical Officer for the Workhouse, at Gordon-road, Peckham. Salary £120 per annum, with furnished apartments outside the workhouse, and an allowance of £1 1s. weekly in lieu of board and washing. Apply to the Clerk to the Guardians, Offices, 29, Peckham-road, S.E.

PECKHAM HOUSE ASYLUM, Peckham, S.E.—Junior Assistant Medical Officer. Salary £130 per annum, with board and lodging.

PRESTON ROYAL INFIRMARY.—Assistant House Surgeon. Salary £80 per annum, with board, lodging, and washing, &c.

QUEEN'S HOSPITAL, Birmingham.—Assistant Ophthalmic Surgeon. Honorarium £50 per annum.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Examiners.

ROYAL DEVON AND EXETER HOSPITAL, Exeter.—Assistant House Surgeon. Salary £40 per annum, with board, lodging, and washing. Also Junior Assistant House Surgeon for six months. Board, lodging, and washing provided.

ROYAL FREE HOSPITAL, Gray's Inn-road, London.—House Physician, House Surgeon, and a Casualty House Surgeon for six months each. Board, &c, provided.

ROYAL HALIFAX INFIRMARY.—Third House Surgeon, unmarried. Salary £50 per annum, with residence, board, and washing.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo-bridge-road, London.—Two Assistant Physicians.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, London.—House Physician for six months. Salary at the rate of £40 per annum, with furnished apartments, board, and washing.

ROYAL SURREY COUNTY HOSPITAL, Guildford. — Assistant House Surgeon. Salary £50 a year, with board, residence, and laundry.

SALOP INFIRMARY, Shrewsbury.—Assistant House Surgeon for six months. Salary at the rate of £40 per annum, with board and washing.

SEAMEN'S HOSPITAL SOCIETY (*Dreadnought*), Greenwich, S.E.—House Physician for *Dreadnought* Hospital, Greenwich. Salary £15 per annum, with board and residence.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—Assistant House Surgeon for six months. Salary at the rate of £50 per annum, with board and residence.

ST. GEORGE'S AND ST. JAMES'S DISPENSARY, 60, King-street, Regent-street, London.—Honorary Physician.

ST. SAVIOUR'S UNION, Surrey.—Second Assistant Medical Officer at the Infirmary, East Dulwich-grove, S.E. Salary at the rate of £100 per annum, with residential allowances, subject to statutory deductions. Apply to the Clerk, Offices, John-street West, Blackfriars-road, S.E.

STAMFORD HILL AND STOKE NEWINGTON DISPENSARY, Stoke Newington.—Assistant Resident Medical Officer. Salary £100 per annum, with board and residence.

STOCKPORT INFIRMARY.—Assistant House and Visiting Surgeon. Salary £70 per annum, with board, washing, and residence.

SUNDERLAND INFIRMARY.—House Surgeon. Salary £80, rising £10 annually to £100, with board and residence.

TAUNTON AND SOMERSET HOSPITAL, Taunton.—Assistant House Surgeon for six months. Salary at the rate of £30 per annum, with board, lodging, and laundry.

THE CHIEF INSPECTOR OF FACTORIES gives notice of vacancies for Certifying Surgeons under the Factory Acts at Nantyglo, in the County of Monmouth, at Dungarvan in the County of Waterford, and at Ilkley in the County of York.

UWCHALED RURAL DISTRICT COUNCIL.—Medical Officer of Health for above district. Salary £20 per annum. Apply to the Clerk to the Council, Union Offices, Corwen.

VICTORIA WOMEN'S SETTLEMENT DISPENSARY, Netherfield-road, North, Liverpool.—Resident Lady Medical Officer.

WEST RIDING ASYLUM, Wakefield.—Assistant Medical Officer as Locum Tenens. Salary £3 3s. per week, with apartments and board.

WESTON-SUPER-MARE HOSPITAL.—House Surgeon, unmarried. Salary £100 per annum, with board and residence in the hospital.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—Assistant House Physician for six months. Honorarium at the rate of £50 per annum, and board, lodging, and washing.

WORKSOP VICTORIA HOSPITAL.—Honorary Surgeons.

YORK COUNTY HOSPITAL.—House Surgeon. Salary £50 per annum, with board, residence, and washing.

Births, Marriages, and Deaths.

BIRTHS.

CURRIE.—On March 10th, at 18, Longmarket-street, Maritzburg, Natal, the wife of O. J. Currie, M.B., M.R.C.S., of a daughter.

GOODISSON-BOON.—On March 30th, at Broseley, Shropshire, the wife of J. Goodisson-Boon, L.R.C.P., L.R.C.S. Irel., of a son.

GOWRING.—On March 30th, at The Knowle, Newport, Mon., the wife of B. W. N. Gowring, M.R.C.S., of a son.

GUMMOW.—On March 29th, at Bosmere, Northfield, Birmingham, the wife of James Freeman Gummow, M.R.C.S., L.R.C.P. Lond., of a daughter.

ROGERS-TILLSTONE.—On March 30th, at Wilbury-avenue, Hove, Sussex, the wife of Hermann Rogers-Tillstone, M.D., of a son.

SANKEY.—On April 1st, at Portobello, Brenchley, Kent, the wife of J. Ivor Sankey, M.R.C.S., of a son.

DEATHS.

CAMERON.—On April 2nd, at Great Portland-street, W., George Fenton Cameron, M.D., J.P., aged 75 years.

MACDONALD.—On March 16th, suddenly, at Selina Cruz, Mexico, Archibald Macnicol Gillies Macdonald, M.B., C.M., late of London.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

PERNICIOUS ADVERTISEMENTS.

THE *Wimbledon Independent* of March 31st publishes the following advertisement:—

APIOL and STEEL PILLS for females.—A French remedy for all irregularities and obstructions, superseding bitter apple, pil cochal, Pennyroyal, &c. Price 4*s.* 6*d.*, post free.—Obtainable only from Martin, Foreign Chemist, Southampton.

The *Southampton Times and Hampshire Express* of March 24th publishes the following advertisement:—

THE WELL-KNOWN TALENTED MEDICAL BOTANIST,
MISS BELLAIR,
VICTORIA VILLAS, 103, UPPER CLOVELLY-ROAD (OFF ST. MARY'S-ROAD),
SOUTHAMPTON.
Business Hours—From 11 to 2 P.M.; 6 till 9 P.M.
Attends to all Diseases of Females, Impediments to Marriage; also all Obstructions.
Pills for all Diseases.
Hours of Consultation till 9 P.M.,
Thursdays excepted.

The proprietors and editors of these papers ought to be well aware of the terrible harm that has been done by the publication of advertisements of medicines for females which remove obstructions, and they ought also to know the risk that they run in continuing to make money by this method. It seems to us not a little curious that men and women should be found willing to run the risks that are incurred by this filthy traffic. "Medicines to remove obstructions," when designed for female use, must mean abortifacients, for there is no other common cause of cessation of the menstrual flow save pregnancy. Whether the usual remedies for "female obstructions" do or do not act as ecbolics is a question which we have dealt with at length in our columns; we here only desire to emphasise the opinion of all decent persons that such advertisements should not be published. Young women should not have inducements held out to them to place themselves in the hands of mischievous quacks and to dose themselves with costly rubbish, nor should they be encouraged in attempts to procure abortion upon themselves whether the agents placed in their hands be perniciously efficacious or fraudulently inept.

We refer the editor of the *Wimbledon Independent* to THE LANCET of Dec. 31st, 1898, wherein, on page 1808, he will find an account of Martin's Apiol and Steel Pills for Ladies. Our transaction with Martin satisfied us that he believed himself to be supplying his "remedy for all irregularities" to an unchaste female, and what an unchaste female wants such remedies for is surely not open to doubt. The name of the "well-known talented medical botanist" who figures in the *Southampton Times and Hampshire Express* is new to us, but the wording of her claim to public attention should have ensured the refusal of her advertisement.

A SPLINT FOR BUNIONS.

IN aggravated conditions of bunion a toe-spring sold by Mr. James Pond, of 23, Castle Meadow, Norwich, price 3*s.* 9*d.*, of which a specimen has been submitted to us, is likely to be of service. It practically consists of a spring splint running along the outer side of the great toe, which latter is encircled by a washleather-covered metal loop attached to the splint. The next toe is encircled by an elastic band attached to a side projection from the metal loop which goes under the toe. The instrument can be worn at night to keep the great toe in a normal position during the hours of sleep.

GELATIN ENVELOPES FOR SURGICAL DRESSINGS.

MESSRS. REYNOLDS AND BRANSON of Leeds have sent us a sample of their new gelatin envelopes for surgical dressings for which they claim that a small quantity—say a yard or less—of gauze, &c., can be carried in a surgeon's bag and be kept perfectly clean. These envelopes, which are of ordinary shape, allow the dressings to be visible and at the same time can be hermetically sealed. Provided the gelatin does not crack the little invention should be found useful.

"NOT A REAL DOCTOR."

AN action was recently tried before Mr. Justice Grantham and a special jury in which a medical man claimed damages for slander. The plaintiff, a Licentiate of the Royal College of Physicians of London, was described by the defendant as "No doctor," the words of the slander as given in uncontradicted evidence being, "He is no doctor; he has not passed his examination and is no class of doctor at all." The defendant was landlord to two other medical men in the town and seems to have considered it his duty to his tenants to decry the medical position of their rival. We are glad to say that the medical men in question behaved throughout with complete professional courtesy to the victim of their landlord's ill-judged zeal in their behalf. The defendant was very properly fined £100 with costs for his libellous remarks. The foundation of these libels—for this is not the first example of the sort that has come before us—is the double use of the word "Doctor" which is always causing irritation in the medical profession. Possibly the offender in this case was really to some extent misled by the fact that the plaintiff possessed no degree as Doctor of Medicine.

GLOUCESTER INFIRMARY: THE WORKMEN'S COMPENSATION ACT.

AT the annual general meeting of the supporters of the Gloucester General Infirmary held on March 15th the chairman (Colonel Curtis Hayward) said that the committee had had before them the question of giving certificates for use under the Workmen's Compensation Act to patients treated at the Infirmary. It was felt that it was undesirable that the institution should be brought into cases taken before the law courts, and, on the other hand, it was clearly a hardship to refuse to give any certificate at all. Under these circumstances it had been decided to empower the house surgeon to give a certificate simply stating that such-and-such a patient had been treated at the infirmary for such-and-such a time suffering from such-and-such injuries. Any special cases would be brought before the committee for consideration. In order to obtain the services of a qualified assistant house surgeon it had been found necessary to offer a salary which had been fixed at £30 per annum.

THE AUTOCRATIC DOCTOR.

THE following witty verses we extract from the *Bristol Medico-Chirurgical Journal* for March. The editor says that they are from the pen of a well-known actor:—

(*With acknowledgments to Rudyard Kipling.*)

I.

When you've swallowed Scott's Emulsion by the gallon or the jug,
When you've finished Iodinin' of your back,
Will you kindly drop your sputum in my little china mug
And send it to a party at Nordrach?
He's an Autocratic Doctor with a rough and ready tongue,
But Tubercular Bacilli can't abide him,
And the patient finds him busy wiping something off his lung
By cramming lots of little things inside him.

Raw meat, cooked meat, meat of a hundred kinds,
Fifty chronics at table, striving to eat their lunch,
Each of 'em doing his level best to swallow the skins and rinds.
Pass your plate for credit's sake and munch, munch, munch!

II.

There are some who "pouch" in secret, asking no permission to,
For they know they wouldn't get it if they did.
Scraps of cheese, and bits of lobster, lumps of meat they couldn't chew,
And a rather more than "gamey" piece of kid.
And havin' been so casual, they feel sorry when they're gone
(For the Autocratic Doctor's sure to "out" em).
When their lungs are going dicky with the winter coming on
They'll miss the bloke who understood about 'em.

Cooked food, raw food, plenty of milk and rest,
Quarter o' pound o' butter—*Schwarzbrod* by the hunch.
Each of 'em trying to raise his weight and widen his girth and chest.
Pass your plate for your credit's sake and munch, munch, munch!

"THE REGISTERED QUACK."

WITH reference to an article bearing this heading last week we are informed that the name of Harman Tarrant was erased from the list of Fellows of the Royal College of Surgeons of Edinburgh at the last meeting of the College held in February. We trust that the two other corporations from which Mr. Harman Tarrant obtained qualifications will follow suit.

M.R.C.S., L.R.C.P.E.—Nothing would be gained by printing the advertisements in THE LANCET. Their style and even their wording is perfectly well known to all our readers. The only persons who can put a stop to their publication are the proprietors and editors of the papers.

An Old Guy's Man.—Dr. William Duncan of 6, Harley-street, W., has received a subscription from a gentleman with this *nom-de-plume* who failed to send his address. Will he kindly communicate with Dr. Duncan?

Ravelston.—We presume that the best openings will be obtained by those on the spot. We cannot say anything definite about the prospect.

C. H. R.—Such books cannot be read to any advantage without a knowledge of anatomy and physiology.

M.B. Edin.—Fees should be paid in respect of both coroner's orders.

Indo-Briton.—The fee should certainly have been paid.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, April 5th, 1900.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radiation Vacuo.	Maximum Temp. Shade.	Min. Temp	Wet Bulb.	Dry Bulb	Remarks at 8.30 A.M.
Mar. 30	30·05	E.	...	87	49	34	36	37	Hazy
,, 31	30·34	E.	...	79	50	37	38	40	Hazy
April 1	30·23	E.	...	71	47	36	39	42	Hazy
,, 2	30·08	S.W.	...	74	51	33	34	36	Cloudy
,, 3	29·76	S.W	...	81	54	36	40	41	Raining
,, 4	29·28	WNW	0·33	98	58	41	46	48	Cloudy
,, 5	29·54	N.E.	0·05	62	49	43	44	47	Cloudy

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (9th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M.).

TUESDAY (10th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat 2 P.M. and 6 P.M.), Royal Ear (3 P.M.).

WEDNESDAY (11th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.) Cancer (2 P.M.)

THURSDAY (12th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.) University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.).

FRIDAY (13th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.).

SATURDAY (14th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY (9th).—MEDICAL SOCIETY OF LONDON.—8.30 P.M. Clinical Cases:—Mr. M. Little: Late Rickets (with skiagrams).—Dr. T. D. Savill: Macular Leprosy under Treatment by Choulmongra Oil.—Dr. A. Eddowes: General Ichthyosis.—Dr. H. A. Caley: Abdominal Aneurysm.—Dr. L. Guthrie: Myotoma Congenita (Thomsen's Disease?).

TUESDAY (10th).—SOCIETY FOR THE STUDY OF INEBRIETY (Medical Society's Rooms, 11, Chandos-street, Cavendish-square, W.).—3.30 P.M. Council Meeting. 4 P.M. Annual Meeting. Dr. M. Bramwell: Dipsomania and its Treatment by Suggestion.

WEDNESDAY (11th).—HUNTERIAN SOCIETY (London Institution, Finsbury-circus).—8.30 P.M. Cases will be shown.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (9th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—2-3.30 P.M. Mr. Hayward Pinch: Class. Clinical Microscopy. Demonstration XI. 4 P.M. Dr. J. Galloway: Consultation. (Skin.)

TUESDAY (10th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. C. T. Williams: Consultation. (Medical.)

WEDNESDAY (11th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—5 P.M. Dr. W. M. Ord: The Clinical Characters of Arthritis. (Clinical Lecture.)

THURSDAY (12th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. J. Hutchinson: Consultation. (Surgical.)

During the week marked copies of the following newspapers have been received: *Southampton Times and Hampshire Express, Brighton Gazette, Sheffield Daily Telegraph, Gazette (Middlesborough), Topical Times (London), Manchester Guardian, Lancashire Daily Post, Birmingham Daily Post, York Daily Herald, Norfolk Daily Standard, South Wales News, Westminster Budget, Bath Daily Chronicle, Times of India, Pioneer Mail, Sussex Daily News, Surveyor (London), Stroud News, Derbyshire Courier, Glasgow Herald, Builder, Scotsman, Bradford Observer, Western Mail, Architect, Citizen, Liverpool Daily Post, Chard News, Leeds Mercury, The Mirror (Trinidad), Bristol Mercury, Cambria Daily Leader, Sanitary Record, Reading Mercury, Local Government Chronicle, Public Health Engineer, Hertfordshire Mercury, City Press, Royal Cornwall Gazette, South Eastern Gazette, Mining Journal, Cape Argus, Local Government Journal, Surrey Advertiser, Guy's Hospital Gazette, Australasian Medical Gazette, Universal Provider, Alliance News, Indian Review, Meat Trades Journal, West Australian, Macclesfield Courier, Salisbury Times, Lincolnshire Echo, Le Temps (Paris), Colchester Telegraph, Bournemouth Guardian, Cromer Post, Land and Water, Daily News, Yorkshire Post, &c., &c.*

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It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE, OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

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